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Environmental Protection Agency

Contract No. 68-W9-0053

ENVIRONMENTAL PRIORITIES INITIATIVE PRELIMINARY ASSESSMENT

KODAK COLORADO DIVISION WINDSOR, COLORADO

Work Assignment No. 18-8JZZ

March 19, 1993



Brown and Caldwell Harza Environmental Services, Inc. Shannon & Wilson, Inc. Western Research Institute



A PROFESSIONAL SERVICES ORGANIZATION

URS CONSULTANTS, INC.

March 19, 1993

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SUBJECT:

ARCS VI, VII AND VIII, CONTRACT NO. 68-W9-0053, WA #18-8JZZ

Environmental Priorities Initiative - Preliminary Assessment (EPI-PA)

Kodak Colorado Division, Windsor, Colorado

Dear Mr. Heise:

Attached please find a copy of the Final Environmental Priorities Initiative -Preliminary Assessment (EPI-PA) for Kodak Colorado Division, Windsor, Colorado. This report is submitted for your final review and approval.

If you should have any questions concerning this report, please do not hesitate to call me at (303) 296-9700.

Very truly yours,

URS CONSULTANTS, INC.

John I. Coats Program Manager

Attachment

cc:

Pat Smith/EPA Region VIII T.F. Staible/URS/Denver Barry Hayhurst/URS/Denver Site File/URS/Denver ARCS File/URS/Denver

with attachment w/o attachment with attachment w/o attachment with attachment

Kodak/EPI-PA Signature Page Revision: 0 Date: 03/19/93 Page i of iv

ENVIRONMENTAL PRIORITIES INITIATIVE PRELIMINARY ASSESSMENT

KODAK COLORADO DIVISION Windsor, Colorado

U.S. EPA Contract No. 68-W9-0053 Work Assignment No. 18-8JZZ

EPA ID #COD078341658

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URS DOCUMENT CONROL NO. 41851.37.94.A4638

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Approved: Pat Smith, Site Assessment Manager, EPA	Date: 3/31/93

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Kodak/EPI-PA Table of Contents Revision: 0 Date: 03/19/93 Page iii of iv

ENVIRONMENTAL PRIORITIES INITIATIVE PRELIMINARY ASSESSMENT

KODAK COLORADO DIVISION Windsor, Colorado

TABLE OF CONTENTS

			•	PAGE #	
DIST		PAGE ON LIST ONTEN		i ii iii	
				PAGE #	
1.0	INTRODUCTION AND OBJECTIVES				
2.0	FACILITY DESCRIPTION 2				
	2.1		y Location	_	
	2.2		y History		
	2.3	Facilit	y Characteristics		
		2.3.1	Geology and Hydrogeology		
			Hydrology		
		2.3.3	Climate		
3.0	PRELIMINARY PATHWAY ANALYSIS				
	3.1 Waste Characterization				
			Ethylene Dichloride		
			Methylene Chloride		
			Methyl Ethyl Ketone		
			Methanol		
			Mineral Spirits		
			Methyl Cellosolve		
			Phosphoric Acid		
			Chromic Acid		
			Toluene		
	3.2		Gamma Butyrolactone		
	3.3	,			
	3.4				
	3.5		xposure Pathway		
	0.0		January		

URS Consultants, Inc.					
ARCS, EPA Regions VI, VII and VIII					
Contract No. 68-W9-0053					

Kodak/EPI-PA
Table of Contents
Revision: 0
Date: 03/19/93
Page iii of iv

4.0	RCRA SUMMARY			19				
	4.1	C-60 S	Storage Tank					
			Unit Characteristics and History					
			Waste Characteristics					
		4.1.3	Evidence of Release and Release History					
		4.1.4	Pollution Migration Pathways and Targets					
	4.2	C-43 S	Storage Tank					
		4,2.1	Unit Characteristics and History					
		4.2.2	Waste Characteristics					
		4.2.3	Evidence of Release and Release History					
		4.2.4	Pollution Migration Pathways and Targets					
	4.3	Satelli						
		4.3.1	Unit Characteristics and History					
		4.3.2	Waste Characteristics					
		4.3.3	Evidence of Release and Release History					
		4.3.4	Pollution Migration Pathways and Targets					
	4.4	Outsid	de Marshalling Area					
		4.4.1	Unit Characteristics and History					
		4.4.2	Waste Characteristics					
		4.4.3	Evidence of Release and Release History					
		4.4.4	Pollution Migration Pathways and Targets					
	4.5	Safety	r-Kleen Tanks					
		4.5.1	Unit Characteristics and History					
		4.5.2	Waste Characteristics					
		4.5.3	Evidence of Release and Release History					
		4.5.4	Pollution Migration Pathways and Targets					
5.0				2(
6.0				22				
	REFERENCES							
11770	NEJ							

APPENDICES

Figure 1

Figure 2

Figure 3

Appendix A - EPA PA Worksheet

Appendix B - EPA PA Standard Form #2070-12

Facility Map Monitor Well Map

Appendix C - RCRA Data Input Form

Appendix D - Photolog

Appendix E - PA+ Facility Reconnaissance Report

Radius of Influence Map

68-41851.37 - Den \PA\Sites\Kodak\Final\TOC:mr

Contract No. 68-W9-0053

Kodak/EPI-PA Revision: 0 Date: 03/19/93

Page: 1 of 33

1.0 <u>INTRODUCTION AND OBJECTIVES</u>

This Environmental Priorities Initiative (EPI) Preliminary Assessment (PA) for the Kodak Colorado

Division (KCD) facility located in Windsor, Colorado (EPA ID #COD078341658), has been prepared to

satisfy the requirements of Work Assignment No. 18-8JZZ issued to URS Consultants, Inc. (URS) in May

1991 by the U.S. Environmental Protection Agency (EPA), Region VIII.

On June 22, 1992, URS personnel conducted a facility reconnaissance at the KCD facility.

This EPI-PA report is the result of observations made during that facility reconnaissance and of

additional research of relevant EPA, State of Colorado, RCRA and facility files in conjunction with

interviews with facility representatives and background research of regional geologic and meteorologic

records.

The objectives of this EPI-PA report are to:

Characterize potential facility waste;

Assess potential contaminant characteristics and quantity;

Inspect and determine the adequacy of contaminant containment in facility Solid

Waste Management Units (SWMUs);

Assess the potential for contaminant migration;

68-41851.37 - Den

Kodak/EPI-PA Revision: 0 Date: 03/19/93

Page: 2 of 33

Identify target populations; and

Determine the potential facility impacts to public health and the environment.

2.0 FACILITY DESCRIPTION

2.1 FACILITY LOCATION

The currently active KCD facility is located approximately 1-1/2 miles southeast of Windsor,

Colorado on County Road 66. The address for Kodak Colorado Division is 9952 Eastman Park

Drive, Windsor, Colorado 80551-1310. The facility occupies approximately 3,000 acres in the

western half of Section 26 and the eastern half of Section 27, Township 6 N, Range 67 W, in

Weld County, Colorado. Approximate facility coordinates are 40° 27' 03" N latitude and 104°

52' 00" W longitude (United States Geological Survey, (USGS) 1969; USGS 1980).

2.2 FACILITY HISTORY

The KCD facility is a currently active photographic and lithographic plate manufacturing facility.

The facility began operations on May 27, 1969. The KCD facility does not dispose of or treat

hazardous waste. A limited amount of hazardous waste is stored at the KCD facility prior to

shipment to the ENSCO disposal facility in Arkansas or to Kodak's treatment facility in

Rochester, N. York. Since 1990, waste shipments are no longer sent to ENSCO (Kodak

Colorado Divicion 1992).

68-41851.37 - Den

Kodak/EPI-PA Revision: 0 Date: 03/19/93

Page: 3 of 33

The KCD facility includes an industrial wastewater treatment plant which receives wastewater

from various KCD manufacturing and production areas at the plant facility. The wastewater

is not considered a hazardous waste due to the exclusions listed in 40 CFR Section 261.3

(Colorado Department of Health (CDH) Division of Hazardous Waste 1992). In 1982, the EPA

delisted RCRA "F" waste found in the wastewater treatment plant's sludge and water, allowing

the KCD facility to exclude "F" waste from their RCRA Part B Permit. The wastewater treatment

plant discharges treated water into the Cache la Poudre River in accordance with NPDES Permit

No. C00032158. The sludge from the treatment plant, which consists mainly of aluminum

hydroxide and quartz, is applied as fertilizer to farm land on the KCD property (CDH, Division

of Hazardous Waste 1992).

On September 19, 1984, clean closure of the graveled portion of the Outside Marshalling Area

(OMA) / Drum Storage Area was performed. This closure was conducted in accordance with

the KCD facility's Closure Plan entitled, "Partial Closure Plan for the OMA Drum Storage Area -

Graveled Portion" (CDH, Division of Hazardous Waste 1992). Soil samples from the OMA were

analyzed for organic and mercury content. The test results indicated that organic compound and

mercury levels were below the levels specified in the Closure Plan. The decontamination

requirements specified in the Closure Plan were fulfilled during the closure activities and the

graveled portion of the OMA was no longer considered a hazardous waste storage area by the

subcontractor, CH2M Hill, Inc. and by the KCD facility (CDH, Division of Hazardous Waste

1992).

On September 27, 1984, closures of the C-41 and the C-50 hazardous waste drum storage areas

were conducted. The C-41 waste solvent storage area was located on the fifth floor of Building

68-41851.37 - Den

Kodak/EPI-PA Revision: 0 Date: 03/19/93

Page: 4 of 33

C-41. The photographic waste in Building C-41 was classified as hazardous due to high mercury

concentrations. The clean-up level for mercury was below 0.002 mg/l for the C-41 storage area.

Mercury is no longer used in the photographic process. The C-50 waste storage area was located

outside of Building C-50. The presence of methylene chloride classified the waste in Building

C-50 as hazardous. The clean-up level established for the closure of the C-50 storage area was

that it should be "visually clean of stains created from waste dyes." These closure activities

were performed in accordance with the KCD facility's Closure Plan entitled, "Closure Plans for

the C-41 and the C-50 Drum Storage Area." The drum storage areas were certified to be clean

by the subcontractor, CH₂M Hill Inc., and by the KCD facility (CDH, Division of Hazardous

Waste 1992).

On June 11, 1990, a spill occurred while a product solvent tank was being filled to capacity for

leak testing. Ethylene dichloride (EDC) was used for the test because the manufacturing of

photographic and lithographic plates requires pure EDC. KCD facility personnel believed that

the containment system below the tank had contained the spill. However, on June 14, 1990, it

was discovered that EDC was found in elevated concentrations at the plant wastewater

treatment facility. On June 22, 1990, the soils on the east side of the tank were sampled for EDC

analysis. It was determined at this time that the containment system did not contain the spilled

EDC. KCD facility personnel estimated that approximately 165 gallons of EDC were spilled on

June 11, 1990. Using EPA procedures, a soil cleanup action level of 7.7 ppm was computed.

This action level is based on risk factors and is similar to the action level the EPA uses for clean

closure at a RCRA facility. Based on preliminary facility investigation results, the extent of soil

contamination containing concentrations above 7.7 ppm was estimated to be limited to the tank

length, plus 15 feet, in the north-south direction. The width of the spill was estimated to be

68-41851.37 - Den

Contract No. 68-W9-0053

Revision: 0 Date: 03/19/93

Kodak/EPI-PA

Page: 5 of 33

10 feet east of the center line of the tank. The depth was estimated to be 9 feet below the

natural ground surface. The contaminated soil was removed and shipped to a USPCI permitted

hazardous waste landfill at Grassy Mountain, Utah. After excavation of the soil, two samples

were taken from the south wall of the pit, two samples from the east wall of the pit and two

samples were taken from the north wall of the pit. Analysis of the samples confirmed that the

pit was clean. Analyses of groundwater samples taken at a well located within 20 feet southeast

(downgradient) of the tank indicated concentrations of EDC to be less than the detection limit

of .072 ppb (CDH, Division of Hazardous Waste 1992).

In January 1991, the KCD facility performed a closure of six underground pipes which

transferred 1,2 dichloroethane to and from the waste and product storage tanks outside Building

C-60 to manufacturing areas inside Building C-60. The closure was certified by the KCD facility

and an independent engineering firm and the removed piping was then replaced with

aboveground piping (CDH, Division of Hazardous Waste 1992).

The KCD facility received a RCRA Part A Permit on October 2, 1980, a RCRA Part B Permit on

September 28, 1984, and several air permits for emissions from manufacturing processes. The

KCD facility also has an NPDES Permit for the discharge of facility-treated wastewater into the

Cache la Poudre River (CDH, Division of Hazardous Waste 1992).

2.3 FACILITY CHARACTERISTICS

The KCD facility is located in the Cache la Poudre River Valley between the towns of Windsor

and Greeley, Colorado (Figure 1). There are approximately 5,565 residents within a four-mile

68-41851.37 - Den

Contract No. 68-W9-0053

radius of the facility (U.S. Department of Commerce, Bureau of the Census 1990). The KCD

Kodak/EPI-PA

Date: 03/19/93 Page: 6 of 33

Revision: 0

facility currently employs 2,200 personnel. Land uses within four miles of the facility include

residential, industrial, commercial and agricultural activities (URS 1992). The lower Cache la

Poudre River basin lies in northwestern Weld and northeastern Larimer counties in Colorado and

contains about 800 square miles of irrigated, dry-farmed, and grazing land (USGS 1982c).

The KCD facility consists of 6 manufacturing buildings, a power plant, a distribution center,

feedstock tanks, waste storage tanks, an outside marshalling area and a wastewater treatment

plant (Figure 2). The facility hazardous material areas are all enclosed in a 6-foot chain link

fence topped with 3 strands of barbed wire. A 24-hour security guard and a surveillance system

are in place at all times. No recreational activity is permitted at the facility except in the visitor

area which is located in front of the administration building and is used for company picnics

(Figure 2). Danger and proper protective equipment signs are posted in and around areas

containing hazardous materials (See Photograph 1, Photolog).

2.3.1 Geology and Hydrogeology

The KCD facility is located in the Colorado Piedmont section of the Great Plains

physiographic province. The area ranges in altitude from approximately 4,600 feet above

mean sea level where the Cache la Poudre River joins the South Platte River in the

extreme southeastern part of the area to approximately 5,700 feet above mean sea level

in the western and northern uplands. The alluvial deposits of the Cache la Poudre River

and its tributaries consist of moderately permeable clay, sand, and gravel, which were

derived partly from the local bedrock but mostly from the formations of the Front Range

(USGS 1964). The alluvial deposits range from 0 to 100 feet in thickness. The terrace

deposits consist of beds of sand, gravel, and clay and contain interrelated lenses of

sandy clay. The terrace deposits range from 0 to 130 feet in thickness. The alluvial and

Kodak/EPI-PA Revision: 0

Date: 03/19/93

Page: 7 of 33

terrace deposits of the Cache la Poudre River probably do not exceed 80 feet in thickness

and have an average thickness of about 30 feet between Fort Collins and Greeley.

Underlying the alluvial and terrace deposits are varying thicknesses of the Pediment,

Laramie and Fox Hills Sandstone formations which consist of gravel, sand, shale and

sandstone. The Pediment Formation consists of Arkosic gravel, sand, and red clay and

contain cemented intervals. The Pediment Formation occurs in dissected upland areas

above the alluvial and terrace deposits and ranges from 0 to 100 feet in thickness. The

Laramie Formation consists of silty to sandy blue to gray shale, carbonaceous sandstone,

lignite, coal seams, iron stone and clay and ranges from 60 to 40 feet in thickness. The

Fox Hills Sandstone Formation consists of very fine, angular silty yellowish-gray

sandstone, which is massive and locally fossiliferous and averages 130 feet in thickness

(USGS 1964).

Groundwater is a significant natural resource in the lower Cache la Poudre River basin.

During periods of low precipitation and short surface water supply, supplemental

irrigation water from groundwater sources provides the moisture to sustain crops in this

predominantly agricultural area. Groundwater from the alluvial aquifer has also been

developed for stock watering and domestic supplies (USGS 1964). The principal sources

of groundwater for irrigation in the KCD area, are the alluvium and terrace aquifers,

including Pediment deposits of the Cache la Poudre River and its tributaries. Infiltration

rates and permeability for these aquifers are variable (USGS 1964). Yield from the

alluvium aquifer ranges from a few gallons per minute (gpm) to 2,000 gpm. The wells

developed in this aquifer are used primarily for irrigation and yield an average of

375 gpm (USGS 1964). The underlying Laramie-Fox Hills Sandstone aquifer ranges from

50 to 100 feet in thickness. The sandstone is separated into upper and lower members

by interceding shale beds ranging from 10 to 20 feet in thickness. These shale beds

separate the Laramie portion of the aquifer from the Fox Hills Sandstone portion of the

Contract No. 68-W9-0053

Date: 03/19/93 Page: 8 of 33

Kodak/EPI-PA

Revision: 0

aquifer (USGS 1981). Because of the ready availability of surface water, groundwater is

used principally as a supplemental irrigation supply. Principal sources of recharge to

the alluvial aquifer are seepage from ditches and storage reservoirs, downward

percolation of applied surface water, precipitation and underflow from the north and

west (USGS 1964). The groundwater in the alluvial aquifer is unconfined with depth to

groundwater ranging from 0 to 35 feet below ground surface. All of the wells in the

KCD area are shallow wells averaging 30 feet in depth below ground surface (Office of

the Weld County Commissioner 1992).

2.3.2 Hydrology

The primary surface water feature near the KCD facility is the Cache la Poudre River

which flows east along the southern property boundary of the facility (Figure 1).

Downstream from the facility, the Cache la Poudre River flows to the east around the

northern and eastern portions of Greeley, CO. (USGS 1969; USGS 1980). Drainage

tributaries to the Cache la Poudre River are principally from the north and west. Most

of the minor drainages that were formerly tributaries to the Cache la Poudre River now

terminate in irrigation canals north of the river. The drainage area for the Cache la

Poudre River is approximately 1,877 square miles. The average flow calculated over a

71-year period is 132 cubic feet per second (USGS 1990). There are two irrigation ditches

that flow to and are channeled through the KCD facility. The Whitney Ditch flows from

the west and branches off to the east to nearby farms and to the south via the John Law

Ditch. The John Law Ditch flows from the north and is channeled across the facility and

drains into the Cache la Poudre River. All facility storm sewer water is piped into the

John Law Ditch (Figure 2) (URS 1992).

Contract No. 68-W9-0053

Date: 03/19/93

Page: 9 of 33

Kodak/EPI-PA

Revision: 0

Surface water flows south across the KCD facility and drains into either the Cache la

Poudre River or into the John Law Ditch (Figure 2). The topography of the facility is

relatively flat and slopes gently toward the southern boundary of the facility and toward

the Cache la Poudre River. The southern edge of the facility which does not include any

buildings or waste containment areas lies within a 100-year floodplain. The last

recorded flood along the Cache la Poudre River was recorded in 1965. The 1965 flood

limits and the 50-year flood natural channel indicate that the 100-year flood waters

would not flow across any portion of the facility having buildings or waste containment

areas (CDH, Division of Hazardous Waste 1992). The facility wastewater treatment

plant is located above the 100-year floodplain (Kodak Colorado Division 1992). The

facility wastewater treatment plant and some building structures may lie within the 500-

year floodplain, however no documentation could be found to determine the limits of

the 500-year floodplain (URS 1992).

2.3.3 <u>Climate</u>

The net precipitation for the KCD facility corresponds with the Hazard Ranking System

factor value of 1 (Office of the Federal Register 1990). Precipitation averages 12 inches

annually with an annual evaporation rate of 40 inches, giving an annual precipitation

value of -28 inches which leads to low infiltration rates. The 2-year, 24-hour rainfall is

1.5 inches (Dunne and Leopold 1978). Average wind direction is from the south-

southwest at an average of 10 miles per hour and average temperatures range between

the teens and upper 80s°F (U.S. Department of Commerce 1968).

68-41851.37 - Den

Date: 03/19/93 Page: 10 of 33

3.0 PRELIMINARY PATHWAY ANALYSIS

3.1 WASTE CHARACTERIZATION

Five Solid Waste Management Units (SWMUs) have been identified at the KCD facility (Figure 2). Pictures of each SWMU and other facility structures are included in the Photolog. The five SWMUs include the C-60 Storage Tank, the C-43 Storage Tank, the Satellite Accumulation Areas, the Outside Marshalling Area and 8 Safety-Kleen Tanks. The waste contained in the C-60, 8,000gallon tank is 90% ethylene dichloride which is discharged through overhead piping from the lithographic manufacturing areas in Building C-60. The other 10% waste is a mixture of methyl ethyl ketone, propylene glycol, mono methyl ether acetate and gamma butyrolactone (Kodak Colorado Division 1992). The waste contained in the C-43, 1,000-gallon tank is 90% methanol and 10% water with traces of alcohol (Kodak Colorado Division 1992). This waste is produced during the photo sensitizing process in Building C-43. The Satellite Accumulation Areas consist of 1 to 4 55-gallon drums containing mostly solvents such as methyl ethyl ketone, ethylene dichloride, methylene chloride, toluene chromic acid, phosphoric acid or a waste oil freon mixture. The Outside Marshalling Area (OMA) is permitted to hold a total of 112 55-gallon drums of hazardous waste which is transported from the Satellite Accumulation Areas (Kodak Colorado Division 1992). Safety-Kleen Tanks consisting of 8 30-gallon drums of mineral spirits used for parts cleaning are located in buildings throughout the KCD facility (Kodak Colorado Division 1992). A list of proprietary organics found in the C-60 waste storage tank, could not be obtained due to a KCD trade secret policy (URS 1992). A list of these compounds is located in the classified file at the CDH Division of Hazardous Waste (URS 1992).

Kodak/EPI-PA

Revision: 0 Date: 03/19/93

Page: 11 of 33

3.1.1 Ethylene Dichloride

Ethylene dichloride (EDC) is stored in an 8,000-gallon tank outside of Building C-60 until

it is shipped by tanker truck to the Rochester, New York treatment facility (Kodak

Colorado Division 1992). Most of the EDC in surface water is removed by evaporation.

Releases of EDC on land will dissipate by volatilization into air and by percolation into

groundwater where it is likely to persist for long periods of time (Hazardous Substance

Database 1992). EDC has a low bioaccumulation potential in the food chain; its presence

in some food products is probably due to its use as an extractant. EDC may be

transported long distances when released into the atmosphere and it is primarily

removed by photooxidation. The extent of EDC biodegradation is difficult to assess due

to its susceptibility to volatilization (Hazardous Substance Database 1992).

3.1.2 Methylene Chloride

Methylene chloride (MC) was formerly contained in an 8,000-gallon tank at Building

C-60 and in 55-gallon drums in the Outside Marshalling Area (Kodak Colorado Division

1992). When spilled on land, MC is expected to evaporate from near surface soil into

the atmosphere because of its high vapor pressure. Degradation in groundwater is

unknown. MC will be primarily lost by evaporation to the atmosphere. Evaporation

may take several hours depending on wind conditions. When released into a river, MC

levels are non-detectable 3 to 15 miles from the source. MC released into the

atmosphere will degrade by reaction with hydroxyl radicals subject to direct photolysis.

A small fraction of the chemical will diffuse to the stratosphere where it will rapidly

degrade by photolysis and reaction with chlorine radicals. A moderately soluble

chemical such as MC will be expected to partially return to earth in rain (Hazardous

Substance Database 1992).

Contract No. 68-W9-0053

Kodak/EPI-PA Revision: 0

Date: 03/19/93 Page: 12 of 33

3.1.3 Methyl Ethyl Ketone

Methyl ethyl ketone (MEK) is contained in an 8,000-gallon tank outside of Building C-60

and in 55-gallon drums in the Outside Marshalling Area (Kodak Colorado Division 1992).

When spilled on land, MEK will partially evaporate into the atmosphere and partially

leach into the ground. Degradation of MEK in soil is unknown. MEK will evaporate

into the atmosphere when released into surface water with expected half-lives of 3 days

in rivers and 12 days in lakes. No information is available concerning the fate of MEK

in groundwater but biodegradability studies in anaerobic systems suggest that MEK may

degrade slowly after a long acclimation period. Adsorption to sediment is minimal.

MEK will degrade by reaction with photochemically produced hydroxyl radicals when

released into the atmosphere (Hazardous Substance Database 1992).

3.1.4 Methanol

Methanol is stored in a 1,000-gallon tank outside of Building C-43 (Kodak Colorado

Division 1992). If released to the atmosphere, methanol degrades via reaction with

photochemically produced hydroxyl radicals with an approximate half-life of 17.8 days.

Physical removal from air can occur via rainfall. Decomposition via biodegradation is

expected to occur if released to water. Methanol is expected to degrade via

biodegradation and be susceptible to significant leaching if released to soil. Relatively

rapid evaporation from dry surfaces is likely to occur. (Hazardous Substance Database

1992).

Date: 03/19/93

Page: 13 of 33

3.1.5 Mineral Spirits

Mineral spirits used mainly for parts cleaning are found in Safety-Kleen tanks. The

waste is ignitable (D001) and EP Toxic (D008) (Office of the Federal Register 1991).

3.1.6 Methyl Cellosolve

Methyl cellosolve is found in the contents of the C-60 storage tank. Methyl cellosolve

averages less than 0.1% wt/total wt of the waste contained in the storage tank. (CDH,

Division of Air Pollution Control 1992). Methyl cellosolve will volatilize from soil and

leach rapidly into the ground when released to soil. Methyl cellosolve will slowly

volatilize and will not be expected to readily adsorb to sediment or bioconcentrate in fish

when released to water. Methyl cellosolve will photodegrade with an estimated half-

life of less than 1 day when released into the atmosphere (Hazardous Substance

Database 1992).

3.1.7 Phosphoric Acid

Phosphoric acid is produced from a facility laboratory located in Building C-60. The

drum of phosphoric acid is stored in a satellite accumulation area until it is moved to the

OMA. Approximately 25 gallons are produced a year. While acidity may be reduced

readily by natural water hardness minerals, the phosphate may persist indefinitely.

When spilled on soil, phosphoric acid will infiltrate the soil allowing significant amounts

of phosphoric acid to transport to the groundwater table (Hazardous Substance Database

1992).

Kodak/EPI-PA Revision: 0

Date: 03/19/93

Page: 14 of 33

3.1.8 Chromic Acid

Chromic acid is produced in Building C-60. Approximately one 55-gallon drum of 3%

(weight %) chromic acid is produced annually. Chromium is toxic and highly persistent

in the environment (Hazardous Substance Database 1992).

3.1.9 <u>Toluene</u>

Toluene is a solvent found in the waste stream that is stored in the 8,000 gallon tank

outside of Building C-60. The toluene concentration in the waste is approximately .5%

(weight %). Toluene readily volatilizes into the atmosphere where it degrades. Toluene

released into the soil or water is slowly biodegraded (Hazardous Substance Database

1992).

3.1.10 Gamma Butyrolactone

Gamma Butyrolactone is a solvent found in the waste stream that is stored in the 8,000-

gallon tank outside of Building C-60. The Gamma Butyrolactone concentration in the

waste is approximately 2% (weight %). Gamma Butyrolactone readily volatilizes to the

air where it undergoes rapid degradation (Hazardous Substance Database 1992).

3.2 AIR PATHWAY

The KCD facility currently has state air permits for venting emissions from process buildings,

incinerator baghouse, stacks, and building ventilation systems (CDH, Division of Air Pollution

Control 1992). All of the facility waste is contained in sealed tanks or in 55-gallon drums. The

facility waste is stored inside buildings or at the OMA drum storage area. The waste storage

Contract No. 68-W9-0053

Date: 03/19/93

Page: 15 of 33

Kodak/EPI-PA

Revision: 0

tanks are sealed and buried (Kodak Colorado Division 1992). Venting emissions from the waste

storage tanks are reported by the KCD facility to be low in volatile concentrations (CDH,

Division of Air Pollution Control 1992). The OMA consists of two walls and a roof which

provide protection against sun exposure and wind exposure (URS 1992). The likelihood of

release to the air pathway is reduced substantially due to the sealed containers and the low

concentrations of venting emissions.

Sensitive environments are located within one-half mile of the facility. Deciduous wetland areas

are located within one-half mile downstream along the Cache la Poudre River (State of Colorado,

Division of Natural Resources (CODNR) 1992). There are approximately 5,565 residents located

within 4 miles of the facility (USGS 1980). Agricultural land located on the facility property is

leased by the KCD facility for farming. The KCD facility has appropriated a small portion of the

northwest corner of the KCD property for a wildlife preserve (Kodak Colorado Division 1992).

3.3 **GROUNDWATER PATHWAY**

The KCD facility installed groundwater monitoring wells after a product spill on June 11, 1990.

(See Photograph 11, Photolog). Groundwater analyses performed by Kodak Laboratories

indicated that there was no documented release to groundwater at the facility and ethylene

dichloride limits were below EPA detection limits of .072 ppb. Ongoing quarterly samples are

taken from the monitoring wells to ensure groundwater quality. There are currently 37 wells

located throughout the 3,000 acres of KCD property. Monitoring wells around the immediate

area of the KCD facility are shown in Figure 3. Three of the wells located on the KCD property

are used for irrigation and stock watering. These wells range in depth from 18 to 122 feet below

ground surface. No facility wells are currently used for drinking water. All of the KCD facility

sewage water is pumped to the city of Windsor wastewater treatment plant (Kodak Colorado

Division 1992).

Contract No. 68-W9-0053

Date: 03/19/93 Page: 16 of 33

Kodak/EPI-PA

Revision: 0

Groundwater in the alluvial aquifer beneath the KCD facility is approximately 10 feet below the

ground surface throughout the facility area (CDH, Division of Hazardous Waste 1992). The

shallow depth to water and the moderately permeable nature of the soil allow contamination to

easily enter the aquifer, where it dissipates into large areas through the moving groundwater

(USGS 1964). Groundwater flow beneath the facility is to the southeast and toward the Cache

la Poudre River. The shallow alluvial aquifer is a source for stock watering and irrigation wells.

In addition, the town of Windsor has six municipal wells located within three miles of the

facility which are used for turf irrigation and are at depths ranging from 8 to 38 feet below

ground surface. The town of Windsor currently receives drinking water from reservoirs located

north of the town of Fort Collins (Town of Windsor, City Hall 1992; CDH, Division of Water

Resources 1992). There are approximately 550 wells within a four-mile radius of the facility and

these wells range in depth from 0 to 60 feet below ground surface. All wells are located within

the shallow aquifer (Office of the Weld County Commissioner 1992). The nearest well to the

KCD facility is a domestic well located less than one-half mile east of the facility. This well has

a depth of 29 feet below ground surface (CDH, Division of Water Resources 1992). Most area

residents (including workers at the KCD facility) are served by the Greeley municipal water

system which pipes water to Greeley from reservoirs located north of the town of Fort Collins

(Office of the Weld County Commissioner 1992).

A potential release to groundwater is reduced by facility secondary containment. The C-43 and

C-60 waste storage tanks have secondary containment consisting of a coated concrete bunker.

The concrete bunker at C-43 is large enough to contain the volume of the 1,000-gallon tank. The

bunker contains a sump that will drain the containment area directly to the facility wastewater

treatment plant. A hydrocarbon analyzer is located in the drain and the analyzer will set off an

alarm, if a waste leak or spill occurs. The concrete bunker at C-60 has a gravity feed sump tank

to collect any leakage or overflow from the waste tank. The facility product solvent tanks are

located within the same concrete bunkers as the waste tanks or in similar bunkers with the same

Contract No. 68-W9-0053

Revision: 0 Date: 03/19/93 Page: 17 of 33

Kodak/EPI-PA

containment systems. The OMA has a coated concrete pad which slopes downward toward a

sump located in the center of the pad with an 8-inch berm surrounding the pad. A roof is built

over the pad to prevent excess rain water accumulation. The Satellite Accumulation Areas and

Safety-Kleen tanks are all located inside buildings with concrete floors. Some floors contain

drains which could potentially carry a contaminant spill to either a waste storage tank or to the

facility wastewater treatment plant. The secondary containment features also provide run-on

and runoff control for most facility SWMUs. There are no containment features for the loading

and unloading station located outside the tank concrete bunkers (URS 1992).

3.4 **SURFACE WATER PATHWAY**

There is no documented or observed contaminant release to surface water. A potential for

surface water contamination exists from the waste and product loading and unloading stations

located at the tank storage areas next to Buildings C-43 and C-60. A grated drain which

channels surface water to the wastewater treatment plant is located at the C-43 tank loading and

unloading area. The paved surface around the drain is relatively flat and could potentially allow

spills or leaks to drain into the facility storm sewer system or to be washed away by

precipitation. The area around the C-60 tank loading and unloading area is also a flat paved

surface and could potentially allow a leak or spill to migrate into the storm sewer system. The

storm sewer and most of the facility surface water flows into the John Law Ditch which

discharges directly into the Cache la Poudre River (URS 1992). (See Photograph 17, Photolog).

The Cache la Poudre River flows east along the southern property boundary of the facility.

Discharge into the Cache la Poudre River from the KCD facility wastewater treatment plant is

regulated by NPDES Permit #COOO32158. The permit covers discharges of 1,2-dichloroethane,

silver, ammonia, copper, zinc, aluminum and hexavalent chromium. TSS, BOD, DO and pH

are also monitored. A review of the Discharge Monitoring Reports indicates that an effluent

Contract No. 68-W9-0053

Date: 03/19/93 Page: 18 of 33

Kodak/EPI-PA

Revision: 0

limitation exceedance occurred on April 11 and 30, 1992 when hexavalent chromium discharges

exceeded the limit of 0.1 mg/l (CDH 1993). The RCRA "F" waste that is found in the wastewater

and sludge was delisted by the EPA in 1981 (CDH, Division of Hazardous Waste 1992). Solvents

found in "F" waste consist of RCRA codes F001, F002, F003, F005 and F007. Wastes associated

with these codes are listed in 40 CFR Part 261 (Office of the Federal Register 1991). The facility

is situated on a relatively level ground surface and gently slopes downward toward the Cache

la Poudre River. Surface water which originates at the facility, flows south across the facility

and into the Cache la Poudre River (URS 1992). All surface water intakes within 15 downstream

miles of the facility are used for irrigation purposes. No drinking water intakes are located

within 15 downstream miles of the facility (Weld County Commissioner 1992).

The federally designated endangered Bald Eagle is known to inhabit the KCD facility property

during the winter months in great numbers (CODNR, Division of Wildlife Resources 1992). The

Cache la Poudre River contains several fish species, including carp, white suckers, sand shiners

and fat head minnows. It is unlikely to find sport fishing within 15 downstream miles of the

facility due to the types of fish found in the river (CODNR, Division of Wildlife Resources 1992).

Several deciduous wetlands are located within one-half mile of the facility (U.S. Department of

the Interior 1975a; 1975b). A wildlife preserve consisting of approximately 100 acres is located

upstream at the northwest end of KCD property (Kodak Colorado Division 1992). Surface water

within 15 downstream miles of the facility is used for irrigation. A flood study conducted by

the KCD facility shows that the south edge of the facility property is located within a 100-year

floodplain. The facility wastewater treatment plant and building structures are built above the

100-year floodplain (Kodak Colorado Division 1992). As aforementioned in Section 2.3.2, no

documentation could be found to determine if any portion of the KCD facility is above the 500-

year floodplain (URS 1992).

Contract No. 68-W9-0053

3.5

SOIL EXPOSURE PATHWAY

All wastes at the facility are located in sealed tanks or in 55-gallon drums in buildings with

Kodak/EPI-PA

Date: 03/19/93 Page: 19 of 33

Revision: 0

concrete floors or concrete secondary containment structures. There is a potential risk of

contaminant exposure to facility personnel during an accident or spill of a drummed waste or

during the loading and unloading of hazardous materials at the tank areas. There are 2,200

people currently working at the KCD facility (Kodak Colorado Division 1992). Access to the

hazardous waste areas at the facility is controlled by a locked 6-foot high chain link fence topped

with 3 strands of barbed wire and by locked plant buildings. Danger signs are posted

throughout the facility and there is no recreational activity permitted in the production area of

the facility. Vehicular traffic is limited to facility maintenance personnel and tanker trucks used

in hauling product and waste material. Some farming activity was observed just outside of the

facility perimeter. There are less than 100 residents within a one-mile radius of the facility (URS

1992).

4.0 RCRA SUMMARY

> 4.1 C-60 STORAGE TANK

> > **Unit Characteristics and History** 4.1.1

The C-60 Storage Tank is a sealed 8,000-gallon buried storage tank containing ethylene

dichloride which is discharged through overhead piping from the lithographic

manufacturing area which is performed in Building C-60. Included in this SWMU is a

paved product and waste loading and unloading area. The secondary containment

consists of approximately a 50-by 50-foot coated concrete bunker capable of containing

100% of the tank contents. A product solvent tank is also located within the same

Date: 03/19/93 Page: 20 of 33

Kodak/EPI-PA

Revision: 0

bunker. In the event of a spill or leak, the waste would drain into a gravity sump

system located next to the containment area (Kodak Colorado Division 1992). (See

photographs #7, 8, 9 and 10, Photolog).

4.1.2 Waste Characteristics

Ethylene dichloride and small amounts of methyl ethyl ketone and methyl cellosolve are

found in the C-60 tank. For further information about waste characteristics, refer to

sections 3.1.1, 3.1.3 and 3.1.6 of this report.

Evidence of Release and Release History 4.1.3

No documented or observed release of waste from this SWMU.

4.1.4 Pollution Migration Pathways and Targets

Secondary containment features for the C-60 Storage Tank are designed to prevent

contaminant migration via the groundwater pathway. A potential for contaminant

release to surface water exists from the product and waste loading and unloading area

at this SWMU. (See Photograph 9, Photolog). For further information about pollution

migration pathways and targets, refer to sections 3.2, 3.3, 3.4 and 3.5 of this report.

Date: 03/19/93 Page: 21 of 33

4.2 C-43 STORAGE TANK

4.2.1 Unit Characteristics and History

The C-43 Storage Tank is a sealed 1,000-gallon buried storage tank containing methanol

which is produced during photo sensitizing in Building C-43. The methanol is poured

into a sink drain and is transported to the storage tank via piping which is contained in

a concrete-lined trench. Included in this SWMU is a paved product and waste loading

and unloading area with a drain which leads to the KCD wastewater treatment plant.

Secondary containment for the tank consists of an approximately 50- by 100-foot coated

concrete bunker capable of holding 100% of the tank contents. A product tank is also

located within the same concrete bunker. A drain transporting waste to the facility

wastewater treatment plant is located at the bottom of the bunker. A hydrocarbon

analyzer inside the drain will sound an alarm if any contamination is detected (Kodak

Colorado Division 1992). (See photographs #3, 4 and 5, Photolog).

4.2.2 Waste Characteristics

Methanol and small amounts of water and alcohol are found in the C-43 Storage Tank

(Kodak Colorado Division 1992). For further information about waste characteristics,

refer to Section 3.1.4 of this report.

4.2.3 Evidence of Release and Release History

There is no documented or observed release for this SWMU.

Date: 03/19/93

Page: 22 of 33

4.2.4 Pollution Migration Pathways and Targets

The secondary containment for the C-43 Storage Tank helps to prevent contaminant

migration via the groundwater pathway. A potential area for contaminant release to

surface water is the product and waste loading and unloading area (URS 1992). (See

Photograph 3, Photolog). For further information on pollution migration pathways and

targets, refer to sections 3.2, 3.3, 3.4 and 3.5 of this report.

4.3 SATELLITE ACCUMULATION AREAS

4.3.1 <u>Unit Characteristics and History</u>

The Satellite Accumulation Areas (11 total) are located in buildings C-15(1), C-18(1),

C-29(1), C-42(1), C-48(1), C-50(2) and C-60(4) and consist of 1 to 4 55-gallon drums

containing one or more of the following chemicals: methanol, methyl ethyl ketone,

ethylene dichloride, methylene chloride, phosphoric acid and oil mixed with freon. The

accumulation areas are located in buildings throughout the plant in locked areas with

concrete floors. (See photographs #1, 2, 6 and 12 Photolog). Ninety-day accumulation

areas are located in Buildings C-42 and C-60.

4.3.2 Waste Characteristics

For information about waste characteristics, refer to sections 3.1.1, 3.1.2, 3.1.3, 3.1.4,

3.1.6 and 3.1.7 of this report.

Date: 03/19/93

Page: 23 of 33

4.3.3 Evidence of Release and Release History

There is no documented or observed release for this SWMU.

4.3.4 Pollution Migration Pathways and Targets

The Satellite Accumulation Areas range in size from a small fenced accumulation area

(photographs #1, #2, Photolog) to a large open room (Photograph #12, Photolog). Some

containment features in the Satellite Accumulation Areas include drains that drain into

the wastewater treatment plant or into a waste tank; and capped drains to prevent

waste from draining (Kodak Colorado Division 1992). For further information on

pollution migration pathways and targets, refer to sections 3.2, 3.3, 3.4 and 3.5 of this

report.

4.4 OUTSIDE MARSHALLING AREA (OMA)

4.4.1 <u>Unit Characteristics and History</u>

The Outside Marshalling Area consists of 112 55-gallon drums which are transported

from the Satellite Accumulation Areas. The OMA has secondary containment consisting

of a 50- by 50-foot concrete pad. The pad slopes downward toward a sump in the center

and has an 8-inch berm surrounding the pad. Other secondary containment features

consist of a roof along with two walls on the north and east sides of the concrete pad

(URS 1992). (See photographs #13, 14, 15 and 16, Photolog).

Contract No. 68-W9-0053

Revision: 0 Date: 03/19/93

Page: 24 of 33

Kodak/EPI-PA

Waste Characteristics 4.4.2

The 55-gallon drums stored in the OMA originate in the Satellite Accumulation Areas

and contain waste with the same characteristics. For further information on these

wastes, refer to sections 3.1.1, 3.1.2, 3.1.3, 3.1.4, 3.1.6 and 3.17 of this report.

4.4.3 Evidence of Release and Release History

There is no documented or observed release from this SWMU.

Pollution Migration Pathways and Targets 4.4.4

The aforementioned secondary containment features at the OMA are designed to prevent

migration of wastes via the groundwater, surface water, soil and air pathways. For

further information on pollution migration pathways and targets, refer to sections 3.2,

3.3, 3.4 and 3.5 of this report.

4.5 SAFETY-KLEEN TANKS

> 4.5.1 **Unit Characteristics and History**

The Safety-Kleen Tanks consist of 8 30-gallon tanks which contain mineral spirits used

for parts cleaning. The tanks are located in locked manufacturing buildings with

concrete floors. The Safety-Kleen Corporation delivers new tanks and returns the used

tanks to the Safety-Kleen distribution center for storage until they are transported to a

recycling center (URS 1992).

Kodak/EPI-PA

Revision: 0 Date: 03/19/93

Page: 25 of 33

4.5.2 Waste Characteristics

The Safety-Kleen Tanks contain mineral spirits used in parts cleaning. For further

information on mineral spirits, refer to section 3.1.5 of this report.

4.5.3 Evidence of Release and Release History

There is no documented or observed release from this SWMU.

4.5.4 Pollution Migration Pathways and Targets

The Safety-Kleen Tanks are located inside buildings with concrete floors. Some floors

contain drains that lead to the facility wastewater treatment plant (Kodak Colorado

Division 1992). For further information about pollution migration pathways and targets,

refer to sections 3.2, 3.3, 3.4 and 3.5 of this report.

Contract No. 68-W9-0053

Kodak/EPI-PA Revision: 0

Date: 03/19/93 Page: 26 of 33

5.0 **SUMMARY**

The KCD facility is located in a rural area surrounded by agricultural land and the small town of

Windsor which is located approximately two miles to the northwest. During the Facility

Reconnaissance, five SWMUs were observed. Secondary containment for each of these SWMUs has

been designed to prevent contaminant migration.

Secondary containment features located in the SWMU areas provide adequate capacity to contain spills

and leaks (CDH, Division of Hazardous Waste 1992). However, the hazardous waste loading and

unloading areas at buildings C-43 and C-60 are located over relatively flat paved surfaces which are the

source of some concern for surface runoff in the event of a spill or leak. All surface water runoff drains

into the John Law Ditch or into the Cache la Poudre River (URS 1992). Contamination to groundwater

lying beneath the facility is a strong potential, due to location of the groundwater which is 10 feet below

ground surface and the moderate permeability of the soil. Spills outside of containment, similar to the

EDC spill mentioned in section 2.2 may migrate via groundwater. Ongoing quarterly groundwater

monitoring will assist in the early detection of a contaminant release to groundwater. Surface water and

groundwater in the area is used mainly for agricultural and stock watering purposes (CDH, Division of

Water Resources 1992). Several deciduous wetland areas are located along the Cache la Poudre River

and the federally designated endangered Bald Eagle is known to inhabit the area within four miles of

the facility during the winter months (CODNR, Division of Wildlife Resources 1992).

68-41851.37 - Den

Contract No. 68-W9-0053

Kodak/EPI-PA Revision: 0 Date: 03/19/93

Page: 27 of 33

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68-41851.37 - Den

Date: 03/19/93 Page: 28 of 33

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Kodak/EPI-PA Revision: 0 Date: 03/19/93

Page: 29 of 33

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Kodak/EPI-PA Revision: 0 Date: 03/19/93 Page: 30 of 33

FIGURES

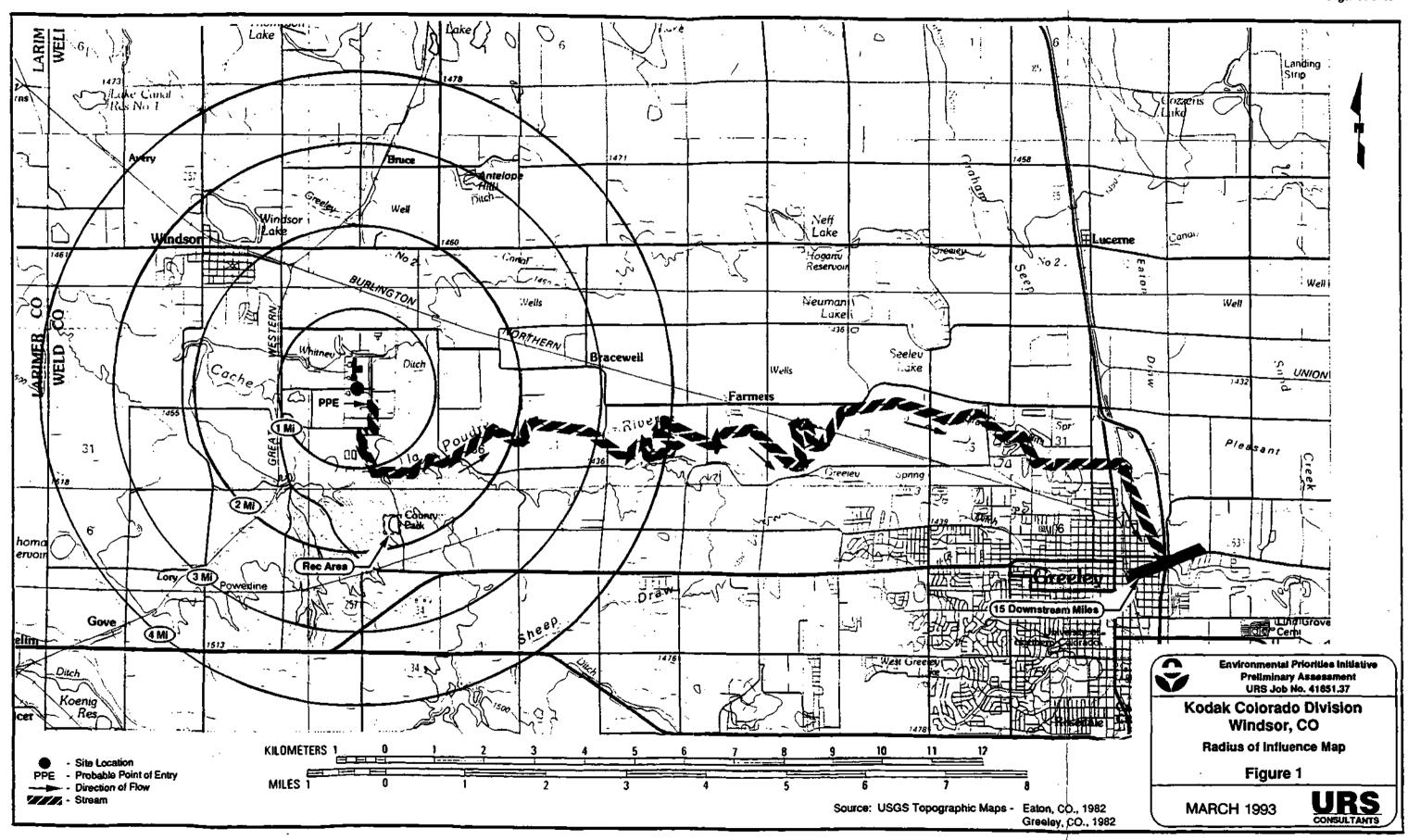
Figure 1 - Radius of Influence Map

Figure 2 - Facility Map

Figure 3 - Monitor Well Map

These figures are provided on the following pages.

Kodak/EPI-PA Revision: 0 Date: 03/19/93 Page: 31 of 33



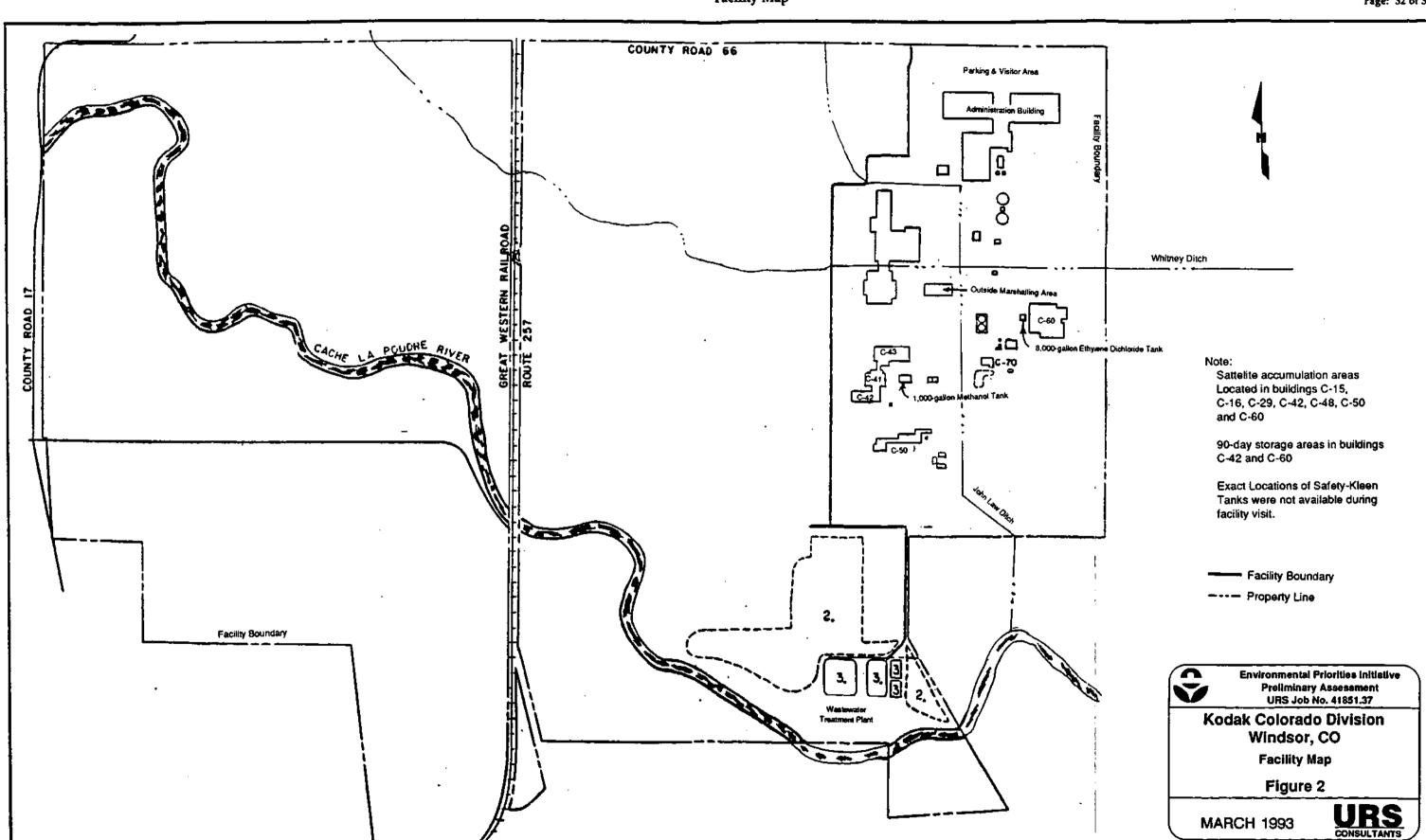
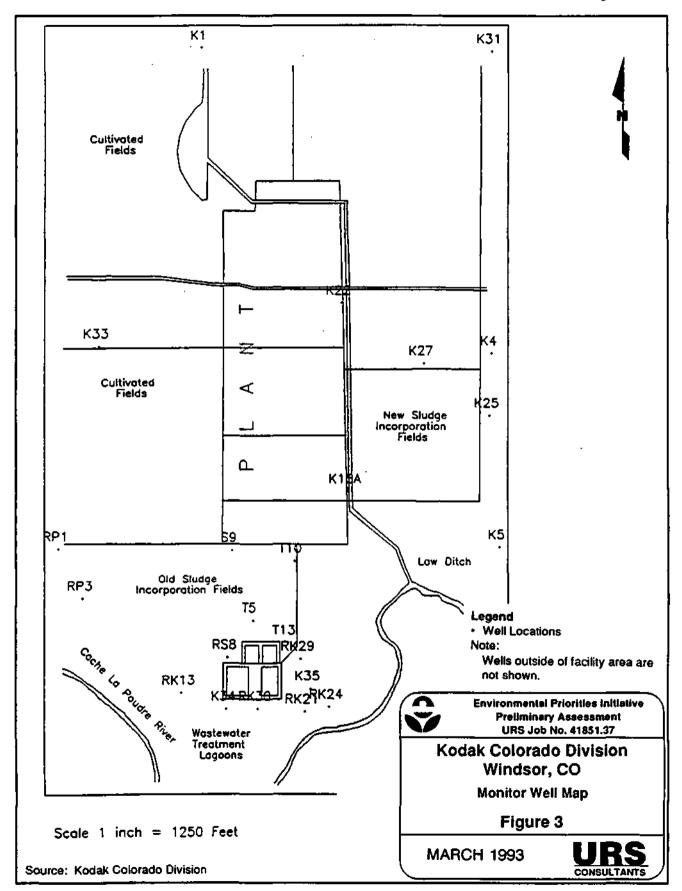


FIGURE 3

Monitor Well Map

Kodak/EPI-PA Revision: 0 Date: 03/19/93

Page: 33 of 33



APPENDIX A EPA PA Questionnaire

Name	Michael Eastep	Location	Windsor, Colorado
Site Name	Kodak	Date	March 19, 1993

PA WORKSHEET

MAJOR CONSIDERATIONS

A)	DOES ANY QUALITATIVE OR QUANTITATIVE INFORMATION EXIST THAT MAY INDICATE AN OBSERVED RELEASE TO GROUNDWATER, SURFACE WATER, SOIL OR AIR?
	Describe: Yes. Ethylene dichloride (EDC) was released during a leak check in 1991.
	Contaminated soil was removed and groundwater concentrations were below EPA detection
	limits of 0.072 ppb.
B)	IF THE ANSWER TO A, ABOVE, IS YES, IS THERE EVIDENCE OF DRINKING WATER SUPPLY CONTAMINATION OR ANY OTHER TARGET CONTAMINATION (i.e. food chain, recreation areas, or sensitive environments)?
	Describe: Levels of EDC were found to be below EPA detection limits in groundwater
	monitoring.
C)	ARE THERE SENSITIVE ENVIRONMENTS WITHIN A 4-MILE RADIUS OR 15 DOWNSTREAM MILES OF THE SITE? Yes. IF YES, DESCRIBE IF ANY OF THE FOLLOWING APPLY:
	- Multiple sensitive environments? Several fish species inhabit the Cache la Poudre River such
	as the White Sucker, Sand Shiners, and Carp. A 100-acre wildlife preserve is located on the
	west end of Kodak Property.
	- Federally designated sensitive environment(s)? The federally endangered Bald Eagle is known
	to inhabit this area in great numbers during the winter months.
	- Sensitive environment(s) downstream on a small or slow flowing surface water body?
	Deciduous wetlands are located along both sides of the Cache la Poudre River.
D)	IS THE SITE LOCATED IN AN AREA OF KARST TERRAIN?
	Describe: No. Mostly gravel and sand.
E)	DOES THE WASTE SOURCE LIE FULLY OR PARTIALLY WITHIN A WELLHEAD PROTECTION AREA AS DESIGNATED ACCORDING TO SECTION 1428 OF THE SAFE DRINKING WATER ACT?
	Describe: No.

F)	DOES ANY QUALITAT OR ATTEND SCHOOL			EXIST THAT PEOPLE LIVE TY?
	Describe: None docum	ented or observed.		
<u>SITE</u>	<u>INFORMATION</u>			
1.	SITE NAME: Kodak C	olorado Division		
	ADDRESS: 9952 Eastm	an Park Drive		
	CITY: Windsor	COUNTY: Weld	STATE: <u>CC</u>	ZIP: <u>80551</u>
	EPA ID:COD0783416	58		
	LATITUDE: 40° 27′ 03′	N LONGI	TUDE: <u>104° 52′ 00″ V</u>	<u>v</u>
2.	DIRECTIONS TO SITE	(From nearest public 1	oad):	
	Approximately 1 1/2 n	iles southeast of the	town of Windsor, Col	orado on County Road 66.
3.	SITE OWNERSHIP HIS	TORY (Use additional	sheets, if necessary):	
	A. Name of current ow	ner: <u>Eastman Kodak</u>	Company, 323 State	Street
	City: Rochester	County:	State: <u>N</u>	Zip: <u>14650</u>
	Dates: From1969	To Present	Phone:	(716) 458-1000
	B. Name of previous ov	vner: <u>N/A</u>		
	City:	_ County:	State:	Zip:
	Dates: From	То	Phone:	
	Source of ownership da	ta:		
			·	
4.	TYPE OF OWNERSHIP	(Check all that apply):	
	X Private	State	Municipal	
	Federal	County	Other (desc	rihe)·

5.	NAME OF SITE OPERATOR: Mr. Nels Grabenstetter
	ADDRESS: 9952 Eastman Park Drive
	CITY: Windsor COUNTY: Weld STATE: CO ZIP: 80551
	PHONE:(303) 686-7611
BACKO	GROUND/OPERATING HISTORY
6.	DESCRIBE OPERATING HISTORY OF SITE: KCD is a photographic and lithorgraphc plate
	manufacturing facility. KCD began its operations on May 27, 1969 and is currently active.
	Source of information: CDH, Division of Hazardous Waste 1992
7.	DESCRIBE SITE AND NATURE OF SITE OPERATIONS (property size, manufacturing, waste
	disposal, storage, etc.): The KCD facility is located on 3,000 acres. KCD manufactures
	photographic products and produces several wastes that are stored in facility tanks and in 55-
	gallon drums. KCD ships waste to Rochester, New York for disposal.
	Source of information: CDH, Division of Hazardous Waste 1992
8.	DESCRIBE ANY EMERGENCY OR REMEDIAL ACTIONS THAT HAVE OCCURRED AT THE SITE:
	A product tank containing ethylene dichloride overflowed during a leak test. A clean closure
	was performed and monitoring wells for groundwater were installed.
	Source of information: <u>CDH, Division of Hazardous Waste 1992</u>
9.	ARE THERE RECORDS OR KNOWLEDGE OF ACCIDENTS OR SPILLS INVOLVING SITE WASTES?
	Describe: Yes. See Question #8.
	Source of information: CDH, Division of Hazardous Waste 1992
10.	DISCUSS EXISTING SAMPLING DATA AND BRIEFLY SUMMARIZE DATA QUALITY (e.g., sample objective, age/comparability, analytical methods, detections limits and QA/QC):
	Laboratory analysis performed on C-43 waste solvent tank shows concentrations of 80%
	methanol and 20% water with traces of alcohol. The C-60 waste solvent tank shows
	concentrations of 90% ethylene dichloride and 10% of the waste is a mixture of MEK, methyl

cellosolve and proprietary organics. Groundwater monitoring samples show ethylene dichloride concentrations to be <.072 ppb which is the detection limit.

Source of information: CDH, Division of Hazardous Waste 1992; Kodak Colorado Division 1992

WASTE CONTAINMENT/HAZARDOUS SUBSTANCE IDENTIFICATION

- 11. FOR EACH SOURCE AT THE SITE, SUMMARIZE ON TABLE 1 (page 12): 1) Methods of hazardous substance disposal, storage or handling; 2) Size/volume/area of all features/structures that might contain hazardous waste; 3) Condition/integrity of each storage disposal feature or structure; and 4) Types of hazardous substances handled.
- 12. BRIEFLY EXPLAIN HOW WASTE QUANTITY WAS ESTIMATED (e.g., historical records or manifests, permit applications, air photo measurements, etc.):

Waste quantities are estimated through the RCRA Part B Permit and the facility reconnaissance.

Source of information: CDH, Division of Hazardous Waste 1992; URS 1992

13. DESCRIBE ANY RESTRICTIONS OR BARRIERS ON ACCESSIBILITY TO ON-SITE WASTE MATERIALS:

Waste is fenced by a 6-foot chain link fence topped with 3 strands of barbed wire or locked up inside plant buildings.

Source of information: URS 1992

GROUNDWATER CHARACTERISTICS

14. ANY POSITIVE OR CIRCUMSTANTIAL EVIDENCE OR A RELEASE TO GROUNDWATER?

Describe: No. Groundwater monitoring performed at the KCD facility indicates below EPA detection limit of ethylene dichloride after groundwater analysis.

Source of information: CDH, Division of Hazardous Waste 1992

- 15. ON TABLE 2 (page 13), GIVE NAMES, DESCRIPTIONS, AND CHARACTERISTICS OF GEOLOGIC/HYDROGEOLOGIC UNITS UNDERLYING THE SITE.
- 16. NET PRECIPITATION: 12 inches

SURFACE WATER CHARACTERISTICS

	X Ditches	Y I al	kae	Y Pond	
					
_	Creeks	X Riv	ers _	Other	
	ISCUSS THE PROP ATERS:	BABLE SURFA	CE RUNOFF	PATTERNS FROM	THE SITE TO SURFACE
<u>S</u> t	irface water at the i	facility drains to	the John La	w Ditch which drains	into the Cache la Poudre
Ri	<u>iver.</u>				
	ROVIDE A SIMPLI YSTEM FOR 15 DO				JRFACE WATER FLOW
A	NYPOSITIVEORC	IRCUMSTANT	IALEVIDEN	CEOFSURFACEWAT	ERCONTAMINATION?
Ď	escribe: <u>No. Nor</u>	e documented	or observed.	<u>-</u>	
Sc	ource of information	n: <u>URS 1992</u>			<u> </u>
E	STIMATE THE SIZI	E OF THE UPG	RADIENT DI	RAINAGE AREA FRO	M THE SITE: 442 acres
So	ource of information	n: <u>USGS 1969</u>	9: 1980		
	ETERMINE THE A	AVERAGE AN	NUAL STRE	AM FLOW OF DO	WNSTREAM SURFACE
	Water body:	Cache la Pou	dre River	Flow: <u>132</u> cf	s
	*** 4 . 1 . 1				
	Water body:	John Law Di	t <u>ch</u> F	low: <u>Unknown</u>	, cfs
	•			ow: <u>Unknown</u>	
Sc	Water body:	Whitney Dite	<u>h</u> Flo		cfs
	Water body:	Whitney Dite	ch Flo	ow: <u>Unknown</u>	cfs
IS	Water body: ource of information THE SITE OR PO	Whitney Dite n: USGS 1999 RTIONS THER	EOF LOCAT	ow: <u>Unknown</u> ED IN SURFACE WA	cfs

25.	IDENTIFY AND LOCATE (see item	#35) ANY SURFACE WATER RECREATION AREA WITHIN		
	15 DOWNSTREAM MILES OF THE	E SITE:		
	Several fish species are found with	in 15 downstream miles of the facility. Fishing is not likely		
	due to the types of fish found in th	nis stream segment.		
	Source of information: <u>CODNR</u> ,	Division of Wildlife Resources 1992		
26.	TWO YEAR 24-HOUR RAINFALL:	1.5 inches		
TARC	GETS .			
27.	DISCUSS GROUNDWATER USAG	E WITHIN FOUR MILES OF THE SITE:		
	Groundwater within 4 miles of the	e facility is used mainly for irrigation, domestic and stock		
	watering purposes. The town of W	indsor has 6 municipal wells on record all of which are used		
	as water supply for turf watering (Town of Windsor, Colorado 1993).		
	Source of information: <u>CDH, Div</u>	rision of Water Resources 1992		
28.	SUMMARIZE THE POPULATION SERVED BY GROUNDWATER ON THE TABLE BELOW:			
	<u>Distance</u> (miles)	<u>Population</u>		
	>0 - 1/4			
	·1/4 - 1/2	<u>-10</u>		
	·1/2- 1	<u> </u>		
	»1 - 2	_ <100		
	,2 - 3			
	»3 - 4	(250		
	Source of information: <u>USGS 1980</u>	; U.S. Department of Commerce, Bureau of the Census 1990		
29.	IDENTIFY AND LOCATE (see iter INTAKES WITHIN 15 DOWNSTRI	m #35) POPULATION SERVED BY SURFACE WATER EAM MILES OF THE SITE:		
	No drinking water intakes within	15 downstream miles of the facility.		
	Source of information: Office of	the Weld County Water Commissioner 1992		

30.	DESCRIBE AND LOCATE FISHERIES (provide standing crop and production	WITHIN 15 DOWNSTREAM MILES OF THE SITE and acreage, etc.):
	There are small amounts of various fis	sh species located in the Cache la Poudre River. There
	are no hatcheries and stocking does not	occur along the 15 downstream miles from the facility.
	Source of information: _CODNR, Divis	sion of Wildlife 1992
31.	DETERMINE THE DISTANCE FROM FOLLOWING LAND USES	THE SITE TO THE NEAREST OF EACH OF THE
	Description	<u>Distance</u> (miles)
	Commercial/Industrial	•
	Institutional	1/4
	Single Family Residential	1/2
	Multi-family Residential	
	Park	
	Agricultural	
	Source of information:USGS 1980	
32.	SUMMARIZE THE POPULATION WITH	HIN A FOUR-MILE RADIUS OF THE SITE:
	<u>Distance</u> (miles)	Population
	On-site	2,200
	»O - 1/4	
	·1/4 - 1/2	
	>1/2- 1	<u>. 15</u>
	>1 - 2	<u> 100</u>
	,2 - 3	
	>3 - 4	

Source of information: <u>U.S. Department of Commerce, Bureau of the Census 1990; USGS 1980.</u>

33.	DISCUSS ANY PERMITS:
	County:
	State: NPDES, Air Permits
	Federal: RCRA Part A Permit, RCRA Part B Permit
	Other:
	Source of information: CDH, Division of Hazardous Waste 1992

34. SKETCH OF SITE

Include all pertinent features, e.g., wells, storage areas, underground storage tanks, waste areas, buildings, access roads, areas of ponded water, etc. Attach additional sheets with sketches of enlarged areas, if necessary.

See Figure 2, Facility Map	N †

35. SURFACE WATER FEATURES

Provide a simplified sketch of surface runoff and surface water flow system for 15 downstream miles. Include all pertinent features, e.g., intakes, recreation areas, fisheries, gauging stations, etc.

N †
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,

TABLE 1

WASTE CONTAINMENT AND HAZARDOUS SUBSTANCE IDENTIFICATION¹

SOURCE TYPE	SIZE (Volume/Area)	ESTIMATED WASTE QUANTITY	SPECIFIC COMPOUNDS	CONTAINMENT ²	SOURCES OF INFORMATION
C-60 Tank	8,000 gallons	8,000 gallons	Ethylene Dichloride Methyl Ethyl Ketone Methyl Ethyl Cellosolve	Coated concrete bunker with sump	URS 1992 CDH, Division of Hazardous Waste 1992
C-43 Tank	1,000 gallons	1,000 gallons	Methanol	Coated concrete bunker with drain	URS 1992 CDH, Division of Hazardous Waste 1992
Satellite Accumulation Areas	1 to 4 55-gallon drums	330 gallons	Methyl Ethyl Ketone Ethylene Dichloride Methylene Chloride Phosphoric Acid Chromic Acid Toluene	Sealed 55-gallon drums	URS 1992 CDH, Division of Hazardous Waste 1992
Outside Mashalling Area	112 55-galion drums	6,160 gallons	Methyl Ethyl Ketone Ethylene Dichloride Methylene Chloride Phosphoric Acid Chromic Acid	Coated concrete pad with 8" berm and sump	URS 1992 CDH, Division of Hazardous Waste 1992
Safety-Kleen Tanks	8 30-galion drums	240 gallons	Mineral Spirits (Methyl Ethyl Cellosolve)	30-gallon drum stored within locked building with concrete floors	URS 1992 CDH, Division of Hazardous Waste 1992

Use additional sheets if necessary.

Evaluate containment of each source from the perspective of each migration pathway (e.g., groundwater pathway - non-existent, natural or synthetic liner, corroding underground storage tank; surface water - inadequate freeboard, corroding bulk tanks; air - unstabilized slag piles, leaking drums, etc.)

TABLE 2
HYDROGEOLOGIC INFORMATION¹

THICKNESS (FT.)	HYDRAULIC CONDUCTIVITY (cm/sec)	TYPE OF DISCONTINUITY ²	SOURCES OF INFORMATION
0-100 feet	10 ⁻² to 10 ⁻⁴	Unknown	USGS 1964 Office of the Federal Register 1990
0-130 feet	10 ⁻² to 10 ⁻⁴	Unknown	USGS 1964 Office of the Federal Register 1990
0-100 feet	10 ⁻⁶ to 10 ⁻⁸	Unknown	USGS 1964 Office of the Federal Register 1990
60-400 feet	10 ⁻⁶ to 10 ⁻⁸	Unknown	USGS 1964 Office of the Federal Register 1990
130 <u>±</u>	10 ⁻⁶ to 10 ⁻⁸	Unknown	USGS 1964 Office of the Federal Register 1990
	0-100 feet 0-130 feet 0-100 feet 60-400 feet	O-100 feet	O-100 feet 10 ⁻² to 10 ⁻⁴ Unknown O-130 feet 10 ⁻⁶ to 10 ⁻⁸ Unknown O-100 feet 10 ⁻⁶ to 10 ⁻⁸ Unknown

Use additional sheets if necessary.

ldentify the type of discontinuity within four-miles from the facility (e.g., river, strata "pinches out", etc.)

APPENDIX B EPA PA Standard Form #2070-12

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

L IDENTI	FICATION
01 CO	02 078341658

EFA	PRELIMINARY	/ Asses	MENT				
PART 1	I - SITE INFORMA	LTION AN	ID ASSESS	MENT			
L SITE NAME AND LOCATION		-					
01 SITE NAME (Legal, common, or descriptive name	of site)	02 STREET, R	OUTE NO., OR SP	ECIFIC LOCATION IDENT	NRER		
Kodak Colorado Division		0052 East	nan Park Drive	•			
OS CITY				06 COUNTY		07 COUNTY	308 CONG
ω σ r		W-01715	32 000c	0 000.111		CODE	DIST
Windsor		co	80551	Weld		123	04
<u>-</u>						<u> </u>	
09 COORDINATES LATITUDE	LÖNGITÜDE						
40° 27' 03° N 1 10 10 DIRECTIONS TO SITE (Starting from	04° 52' 00" W					_	
Approximately 1.5 miles southeast of th	•	orado on Co	ounty Road 68				
HL RESPONSIBLE PARTIES						•	
01 OWNER (If known)		OZ STREET (B	usiness, meiling, re	sidential)			
Eastman Kodak Company		323 State 5	Straat				
co City				OS TELEPHONE NUMBE	Ř		
Rochester		NY	14650	(716) 458-1000			
07 OPERATOR (if toown and different from owner)		OB STREET (B	usiness, mailing, re	eldentiel)			
Mr. Nels Grabenstetter		9952 Form	nan Park Drive	•			
OP CITY				, 12 TELEPHONE NUMBE	R		
Windsor		co	80551	(303) 686-7611		_	
13 TYPE OF OWNERSHIP (Check one)							
e A. PRIVATE D.B. FEDERAL:	DC	. STATE (1) D. (COUNTY	□ E. MUNICIPAL			
	(Agency name)						
© F. OTHER:(Specify)		I. UNKNOWN					
(approx) 14 OWNER/OPERATOR NOTIFICATION ON FILE (Check at the spoty)						-
■ A. RCRA 3001 DATE RECEIVED: 10 / 2 /	80 DB. UNCONTRO	OLLED WASTE	SITE (CERCLA 10	G c) DATE RECEIVED		□ C. N	ONE
MONTH DA			<u>.</u>		ONTH DAY YEA		
IV. CHARACTERIZATION OF POTENT 01 ON SITE INSPECTION	BY (Check all that apply)					 :	
	A. EPA . B. EPA CONTI	RACTOR III C. 5	STATE (1 D. COUN	TY E.OTHER	CONTRACTOR		
MONTH DAY YEAR							_
□ NO	_			(Specify)		•	_
		NAME(s): <u>UH</u>	S Consultants,	, Inc.			
02 SITE STATUS (Check one)	03 YEARS OF OPERATION						i
B A. ACTIVE B. INACTIVE C. UNKNOWN	1969		Present		C UNI	KNOWN	
	BEGINNING Y	2018	ENDING:	VEA D			
04 DESCRIPTION OF SUBSTANCES POSSIBLY P			ENUNG	TEAN			
OF DESCRIPTION OF SOUSTANDES FOOSIBLE FO	TEGETI, MOTHER ON PERSON						
KCD is currently permitted for ethylene	dichloride, methanol, m	ethyl ethyl l	ketone, methyl	cellosolve and other	or proprietary	organics.	
OS DESCRIPTION OF POTENTIAL HAZARD TO EN	MIRONMENT AND/OR POPUL	ATION .					
Contamination during a leak or spill cou River.	ild potentially migrate vi	ia groundwa	nter and surfac	e water to nearby re	esidents and	the Cache la l	Poudre
V. PRIORITY ASSESSMENT			••				••
01 PRIORITY FOR INSPECTION (Check one, If high		ete Parl 2 - We	sie information and		zardous Condition	ns end Incidents)	_
CI A. ACTIVE CI S. MEDIU (Inspection required promptly) (Inspection	· ·	n time available	hesis)	(No further action nee	eded complete ~	meni derocitico 4	
VL INFORMATION AVAILABLE FROM			,	And Marie Charles	war-spine CL	aran wagashuan K	
	02 OF (Agency/Organization)		· -			03 TELEPHONE	NUMBER
L							
Pat Smith	EPA					(303) 29	3-1262
04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	08 ORGANIZA	TION	07 TÉLEPHONE NÚMBE	R	ON DATE	00
Michael Eastep	EPA	UAS Consu	ultants, Inc.	(303) 796-9700		B / 10 / MONTH DAY	

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT PART 2 - WASTE INFORMATION

L IDENTIFICATIO	N
01 STATE	02 SITE NUMBER
co ·	COD078341658

			ORMATION			
	INTITIES, AND CHARACTES	UANTITY AT SITE		A WAGTE C	HARACTERISTICS (Chec	the of the teach of
1 PHYSICAL STATES (Check		O Waste GUANTILE		03 WASTE C	HAHACTERIBLICS (Chic	at all that apply)
B. POWDER, FINES	DE. SLURRY must be DE. CLOUID DE. GAS	independent) TONS		# A. TOXIC E.: # B. CORROSIVE F. I C. RADIOACTIVE G. I D. PERSISTENT H. I		I. HIGHLY VOLATIL J. EXPLOSIVE K. REACTIVE L. INCOMPATIBLE
D.D. OTHER	i	CUBIC YARIDS_			- 111 (2.111)	M. NOT APPLICAB
(Specify)		NO. OF DRUMS	315			
L WASTE TYPE					 -	. <u>-</u>
CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	00 COMMEN	пв	
SLU	SLUDGE					
OLW	OILY WASTES	100	gallons	Oil mixed	with solvents and fi	reon
SOL	SOLVENTS	15,500	gallons	MEK, met	hanol, EDC, celloso	olve, mineral spirits,
PSD	PESTICIDES	 				
occ	OTHER ORGANIC		<u> </u>	 	-,, , · ·	
IOC	INORGANIC CHEMICAL	3			-	
ACD	ACIDS	100	gallons	phosphori	c	
BAS	BASES					····
MES	HEAVY METALS					
. HAZARDOUS SUB	STANCES (See Appendix for most	frequently ofted CAS Nurr	(bers)			
01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPO	SAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
OL	Methanol	67-56-1	Tank and drum		90%	Weight %
OL	Ethylene Dichloride	107-06-2	Tank and drum		90%	Weight %
OL	Propylene Glycol Mono Methyl Ether Acetate		Tank and drum		4%	Weight %
OL	Gamma Butyrolactorie	96-48-0	Tank and drum		2%	Weight %
OL .	Methyl Ethyl Ketone	78-93-3	Tank and drum		2%	Weight %
O L	Methyl/Ethyl Cellosoive	110-80-5	Tank and Drum		.5%	Weight %
OL	Toluene	108-88-3	Tank and Drum		.5%	Weight %
CD	Phosphoric Acid	7664-38-2	Drum		1%	Weight %
CD	Chromic Acid	7738-94-5	Drum		3%	Weight %
OL	Methylene Chloride	75-09-2	Tank and Drum		1 to 11%	Weight %
. FEEDSTOCKS (See A	opendix for CAS Numbers)	1				
FDS	61 FEEDSTOCK NAME Methanol	02 CAS NUMBER 87-56-1	CATEGORY		01 FEEDSTOCK NAM	E 02 CAS NUMB
FDS	Ethylene Dichloride	107-08-2	FDS	- 		
FDS	Methyl Ethyl Ketone	78-93-3	FDS			
	Menty Cutt Newlie	7,0-83-3	FDS	- -		
FDS						

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

	EX			

01 STATE 02 SITE NUMBER
CO CODO78341658

EPA		PRELIMINARY ASSESSMENT	CO	COD078341658
	PART 3 - DESCRIPTI	ION OF HAZARDOUS CONDITIONS AND INCIDENT	5	
L HAZARDOU	IS CONDITIONS AND INCIDE	ENTS .		
	OWATER CONTAMINATION ON POTENTIALLY AFFECTED:		POTENTIAL C	ALLEGED
Analysis of gro	undwater sampling indicates	concentrations below background levels.		
	E WATER CONTAMINATION ON POTENTIALLY AFFECTED:		POTENTIAL C	ALLEGED
Contaminants (can potentially flow into the Jo	ohn Law Ditch during a spill or leak and eventually flow into the Ca	che la Poudre Rive	r.
01 = C. CONTAM 03 El POPULATIO	IINATION OF AIR ON POTENTIALLY AFFECTED:		POTENTIAL C) ALLEGED
Solvents used	at the facility would rapidly vo	Ditalize.		
	PLOSIVE CONDITIONS ON POTENTIALLY AFFECTED:		POTENTIAL D	ALLEGED
Chemicals are	kept in sealed containers with	h danger signs posted helping to prevent a fire/explosion condition.	•	
01 = E. DIRECT (03 CI POPULATIO	CONTACT ON POTENTIALLY AFFECTED:		POTENTIAL D	O ALLEGED
KCD currently	employs 2,200 people. Fenc	es, signs and locked areas help to prevent direct contact.		
	INATION OF SOIL ENTIALLY AFFECTED: 2.	200 04 © NARRATIVE DESCRIPTION	POTENTIAL C	ALLEGED
Soil could pote	intially become contaminated	during a spill or leak.		
	IG WATER CONTAMINATION ON POTENTIALLY AFFECTED:	= · · · · · · · · · · · · · · · · ·	POTENTIAL C	ALLEGED
KCD, Greeley used in nearby		rently receive drinking water from reservoirs north of Fort Collins. S	iome domestic wells	i may still be
	R EXPOSURE/INJURY POTENTIALLY AFFECTED: 2.	.200 04 I NARRATIVE DESCRIPTION	POTENTIAL C	ALLEGED
	s facility is fenced or locked in ng with danger signs.	n manufacturing plant buildings. Signs are posted in these areas re	equesting the use o	f proper safety
	TION EXPOSURE/INJURY ON POTENTIALLY AFFECTED:		POTENTIAL C	ALLEGED
KCD is located	I in a rural area and has a fac	cility safety and fire protection department to help prevent contamin	ation from migrating	off the facility.

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT

L IDENTIFICA	TION
01 STATE	02 SITE NUMBE
co	078341658

EL HAZARDOUS CONDITIONS AND INCIDENTS (CONTINUED) Of all J. DAMAGE TO FLORA OF CINARRATIVE DESCRIPTION Several deciduous areas are located along the Cache la Poudre River which runs along the south side of the facility. Of all K. DAMAGE TO FAUNA Of CINARRATIVE DESCRIPTION (Include name(e) of species) The federally endangered Baid Eagle is known to habitat the area around KCD. Of all CONTAMINATION OF FOOD CHAIN Of CINARRATIVE DESCRIPTION Several fish species are found in the Cache la Poudre River. Sport fishing is unlikely due to the type of fish located in the river (Fatheat Count Chinary).	GED
O4 CINARRATIVE DESCRIPTION Several deciduous areas are located along the Cache la Poudre River which runs along the south side of the facility. O1 = K. DAMAGE TO FAUNA O4 CI OBSERVED (DATE:	GED
01 = K. DAMAGE TO FAUNA 04 © NARRATIVE DESCRIPTION (Include name(s) of species) The federally endangered Baid Eagle is known to habitat the area around KCD. 01 = L CONTAMINATION OF FOOD CHAIN 04 © NARRATIVE DESCRIPTION Several fish species are found in the Cache la Poudre River. Sport fishing is unlikely due to the type of fish located in the river (Fathes)	GED
ON CHARRATIVE DESCRIPTION (Include name(s) of species) The federally endangered Baid Eagle is known to habitat the area around KCD. Of the L Contamination of food chain to end contamination of food chain the contaminative Description Several fish species are found in the Cache la Poudre River. Sport fishing is unlikely due to the type of fish located in the river (Father	GED
of the Contamination of food chain the Cache la Poudre River. Sport fishing is unlikely due to the type of fish located in the river (Fathea	
04 O NARRATIVE DESCRIPTION Several fish species are found in the Cache la Poudre River. Sport fishing is unlikely due to the type of fish located in the river (Father	
	d Minnows,
Sand Shiners).	
01 DM. UNSTABLE CONTAINMENT OF WASTES 02 D 08SERVED (DATE:) D POTENTIAL DIALLE (Spills/hunof/standing liquida/heaking diruns) 03 D POPULATION POTENTIALLY AFFECTED: 04 D NARRATIVE DESCRIPTION	GED
None observed or documented.	
01 () N. DAMAGE TO OFFSITE PROPERTY (2 () OBSERVED (DATE:) () POTENTIAL () ALLE: 04 () NARRATIVE DESCRIPTION	GED
None observed or documented.	
01 = 0. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 (I) OBSERVED (DATE:) = POTENTIAL (I) ALLE	GED
A potential exists for waste to run off into storm sewers and to the facility waste water treatment plant. Contamination at the treatment monitored. Storm water flows uninhibited to the Cache la Poudre River.	point is
01 [] P. ILLEGAL/UNAUTHORIZED DUMPING 02 [] OBSERVED (DATE:	GED
None observed or documented.	
05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS	
None observed or documented.	
III. TOTAL POPULATION POTENTIALLY AFFECTED: 5,565	
IV. COMMENTS	
Total population affected was determined to be the population living within a four-mile radius from the facility.	
V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)	<u> </u>
CDH, Division of Hazardous Wasts 1992 CDH, Division of Water Resources 1992 CODNR, Division of Wildlife Resources 1992 Weld County Commissioner, 1992 URS 1992 URS 1992	

APPENDIX C RCRA Data Input Form

EPA REGION I: RCRA DATA INPUT FORMS FOR SUMMARY MODEL

The following forms have been developed to aid in the collection of specific data during assessment of RCRA regulated facilities. The data will be used to better meet national RCRA program reporting

Comments to support data are strongly encouraged and should be added on the data and comment sheets. On the instruction sheets, for example where "source" is recommended, simply circle the source(s) that provided the information. See Appendix A for a description of suggested sources. In all cases, please provide the name and date of the document on the comment line provided so that the source can be located in the future, if necessary. Refer to Appendix B for waste characteristic information for specific chemicals and Appendix C for net precipitation and 1-year 24-hour rainfall data

In many cases, the data requested is the same or similar to the data used in the CERCLA Preliminary Assessment Method scoresheets. In these cases, an asterisk (*) has been placed in the instructions with the item number. This marker will assist the analyst in the event both sets of forms are being

needs developed for treatment and storage facilities but may be applied to disposal facilities.

for New England States.

completed at the same time.

725220-0

Facility ID#: COD 679341658

Estimated	Enough information is known about the facility to make a good estimate (please comment to indicate source and rationale for estimate).
Confirmed	Information was found in the referenced document to support the answer, or a site visit confirmed the information.
	e box as best as you can. This will provide a future analyst an indication of the
data quality in order	to determine if additional study is required.
Worksheets numbers (see Appendix D). U unit, its condition of a 3, 4, and 5 to determ	to determine if additional study is required. Id 1 - 5 have been provided to aid the analyst in reviewing and evaluating the site set Worksheets numbered 1 and 2 to identify each hazardous waste management containment, and its associated chemicals of concern. Use Worksheets numbered nine the site's most toxic and persistent chemical for each route.
Worksheets numbers (see Appendix D). U unit, its condition of a 3, 4, and 5 to determ Please provide the fo	ed 1 - 5 have been provided to aid the analyst in reviewing and evaluating the site see Worksheets numbered 1 and 2 to identify each hazardous waste management containment, and its associated chemicals of concern. Use Worksheets numbered nine the site's most toxic and persistent chemical for each route.

GROUNDWATER ROUTE Instructions & Sources First Page

Observed Release

•1. is There an Observed Release?

Yes, if there is documented groundwater contamination above background levels or above the drinking water maximum contaminant level (MCL); or No, if there is no documentation or indication of a release: Possible, if groundwater quality data or the

	site visit lead you to believe a release to the groundwater may have taken place (e.g., unlined laggon, spill residue on ground, underground storage tank with no groundwater monitoring system, or subsurface/surface soil contamination). Documentation may include analytical evidence, or a report by a regulatory agency or by a facility employee stating that a release has occurred.
	Sources (circle): Monitoring Reports: Site Visit: 3007 Response: Water Compliance Monitoring Files: Site Inspections: Spill Reports. Comment and other source (date): URS 1992
Route	<u>Characteristics</u>
• ₁ .	Depth to Aquifer
er to s	Enter the depth from ground surface to the aquifer beneath the site (in feet).
	Sources (circle): Monitoring Reports: Inspection Reports: Part B. Comment and other source (date):
2.	Net Precipitation
	Average net precipitation over 1 year period.
	Sources (circle): See Appendix B. Comment and other source (date): Office of the Faderal Register, 19:
3.	Physical State
	Evaluate the physical state of the waste most likely to impact the groundwater in the event of a release. Consider the volume, condition and content and select the least stable physical state of the wastes on site:
	stable solid unstable solid powder, ash liquid, gas, sludge

725220-0

Sources (circle): Site Visit: Inspection Reports: Part A. Comment and other source (date): ____ URS.

<u> </u>	Observ	GROUNDWATER ROUTE Date & Comments First Page ed Releases	C o n f i r m • d	E t i m a t e d
	1.	Is there an observed release? (circle one):		×
		Yes No Possible		
	Commo	ents:		
Fai	ed.75	Tanks are buried making it difficult	•	
Τυ	o kser	ve any release.		
<u>B</u>	Route	Characteristics		
	1.	Depth to Aquifer (feet): 10		区
	2	Net Precipitation (inches):	a	哥
	3.	Physical State (check one):	₽.	- a
		Stable Solid (most stable) Unstable Solid Powder, Ash Liquid, Gas. Sludge (least stable) Comments:		

Several solvents and waste oil was observed

during the facility visit.

WORKSHEET #1 Facility Unit Identification

List each specific unit at the site, its size, and condition of containment. Use this worksheet to identify the site's specific units and to select the worst containment level for each unit for each media. Assign GW for groundwater route, SW for surface water, AR for air route, and OS for the on-site route. The worst conditions will be entered on the data sheets for each route.

			Condition				
Unit #	Unit Name & Description	Size	Very Good	Good	Fair	Poor	
1	C-60 Storage Tank	8,0009		X			
2	C-43 Storage Tank	1,000 9		×			
3_	Satellite Accumulation Area]			×		
4	Outside Morshelling Area	61609		\times			
5	Safety-Kleen Tanks	2409.		<u> </u>	\times		
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							

WORKSHEET #2 Unit Contents

Use this worksheet to identify the specific chemicals found at each unit. Refer to units by number based on Worksheet #1. If specific chemicals have not been identified, use chemical groups.

Chemical Name or Weste Type	Unit #														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ethylene dichloride	$ \mathbf{X} $		ΙX	X	•										
methal ethyl Ketone	X		X	X			_								
Methy cello solve	X		X	X				<u> </u>			<u> </u>				
Methanol	_	X	<u>X</u>	X		<u> </u>									
Mineral SPIRITS	_			<u> </u>	<u> X</u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	
Phosphoric acid	_	<u> </u>	X	<u> X</u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>	_			_	
Me thy lene chloride	<u> </u>	_	<u> X</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	ļ	!	<u> </u>	<u> </u>		<u> </u>	<u> </u>	ļ	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
	-	<u> </u>	1	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	1	<u> </u>	<u> </u>	1	<u> </u>	<u> </u>
	┼—	<u> </u> 	<u> </u>	<u> </u>	<u> </u>	<u> </u> -	 _	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>		<u> </u>	! -
	-	<u> </u>	<u> </u>	1	<u> </u>	<u> </u>	<u> </u>	 	<u> </u>	1	_		<u> </u>		<u> </u>
	╄	<u> </u>	1	1	<u>} </u>	<u> </u>	<u>} </u>	1	1	1	1	1	1	<u> </u>	
	╀—	<u> </u> 	<u> </u>	<u> </u>			<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	1	<u> </u>	!
<u> </u>	╂	<u> </u>	1	<u> </u>	<u> </u>	<u> </u>	<u>! </u>	<u> </u> 	 	 	<u> </u>	<u>!</u>	!	 	1
	┼	1	<u> </u>	1	1	<u> </u>	1 _	ì	<u> </u>	1	<u> </u>	<u> </u>	<u> </u>	<u> </u> 	
Siudge	 -	† 	<u> </u>	<u> </u>	<u>!</u>	<u> </u>	<u> </u>	<u> </u> 	 	1 -	<u> </u>	1	<u> </u>	<u> </u>	<u> </u>
Olly Weste	╁╴	<u> </u>		$\frac{1}{1}$	<u> </u>	<u>!</u>	<u> </u> 	1	1	1	<u>}</u>	!	<u> </u>	<u> </u>	<u> </u>
Salvents	╁╴	 		<u> </u>		<u> </u> 	<u> </u>	!	<u> </u>	1	<u> </u>	 	<u>!</u>	<u> </u>	 -
Pesticides	+	<u> </u>	<u>!</u>	!	<u>!^</u>	<u>!</u>	 	<u> </u>	 _	 	<u> </u>		<u> </u>	<u> </u>	\perp
Other Organic Chemicals	\vdash	<u> </u>	<u> </u>	<u> </u>	! -	\	<u> </u>	 	-	1	<u>, </u>	<u>} </u>	<u> </u>	 	
Inorganic Chemicals	十	,	} -	1	<u>'</u>	 	1	<u> </u>	<u> </u>	 	<u> </u>	<u> </u> -	<u> </u>		1
Acide	十	 	İΧ	İX	 		<u>. </u>	'	 	 	 	 	 -	 	+
Bases	+	`	T	I	 	\	 	1	<u> </u>		 	 	1.	 	
Heavy Metale					i			1							<u> </u>

GROUNDWATER ROUTE Instructions & Sources Second Page

C. Containment

*1. Containment is a measure of the physical barriers in place to inhibit a waste from entering the groundwater pathway either now or in the past. Do not consider natural barriers (such as an underlying clay layer) when evaluating containment criteria. If there are multiple SWMUs, salect the SWMU with the worst containment level. Interpret the descriptions in site reports or similar documents, using the following criteria as guidelines:

<u>Unit</u>	Containment/Migration_Potential	Score
Sealed Container/Tank	Sound Secondary Containment	Very Good
Sealed Container/Tank	Unsound Secondary Containment	Good
Leaky Container/Tank	Sound Secondary Containment	Good
Underground Storage Tank	Tank Integrity Unknown	Good
Sealed Container/Tank	No Secondary Containment	Fair
Leaky Container/Tank	Unsound Secondary Containment	Fair
Leaky Container/Tank	No Secondary Containment	Poor
Land-based Unit		Poor

Unit scored (include description and dates in use); use Worksheet #1:

GROUNDWATER ROUTE Data & Comments Second Page

C. Containment (check one):

Uery Good

12 Good □ Fair

Poor

Comments:

Containment for the C-60 Storage tank 15
good, but provides a greater potential Err
a larger release of containments The landing
and unlinding area is a pavel area with
No containment. IN the event of a Spill,
Contaminants could van off to a Soil area
and migrate into groundwater which is only
10 feet in depth. Except for a drain which
flows to the wastewater treatment plant, the Coats
tank has a similar leading and anloading area.

GROUNDWATER ROUTE instructions & Sources Third Page

D. Waste Characteristics

2.

Chemical Name and/or RCRA Waste Code Number

Enter the one chemical or waste code of most concern (for the groundwater route) as defined by the chemical with the highest Sax toxicity rating, as found in Appendix A. Use Worksheer #3 to determine toxicity/persistence for each chemical of concern for the groundwater route (included in Worksheet #2). Do not consider concentrations of contaminants.

Sources (circle): For determining contaminants of concern: Site Visit. Groundwater Analytical Data. For determining most toxic compound: See Appendix A. Comment and other source (date):
Toxicity/Persistence
Value for the chemical or waste of concern. This contaminant should be at a swmt that has a containment score less than "VERY GOOD." Refer to Worksheet #3.
Sources (circle):(See Appendix A. Comment and other source (date):

WORKSHEET #3 Chemical Toxicity/Persistence Values for Groundwater and Surface Water Routes

Identify and list each chemical at the site which has the potential to migrate to the groundwater or surface water routes. List the RCRA waste code and CAS number, if known. Obtain toxicity/persistence values from Appendix A for each chemical. Use the worksheet to select the chemical with the highest toxicity/persistence value (0-18) and enter its name and value in the Waste Characteristics section for the groundwater and surface water routes.

CAS:#	Chemical Name and/or Waste Code	taxicity/persistence 0-18
107-06-2	Ethene dichlaride	12
67-56-1	methanol	12
78-93-3	Methal ethal KeTone	6
110-80-5	methal cellosolve.	unknown
75-09-2	methy lene chloride	12
64475.85-0	Mineral Spirits	18-

					GROUNDWATER ROUTE Data & Comments Third Page	C a n t i	E
<u>D.</u>	Wast	e Char	cteristi	E S .		m • d	t •
	1.				dichloride (EDC)	Ø.	
	2.	Toxi	city/Per	sistence	Value (circle one):	a	G.
	.	0	3	6	9 12 15 18		
	Cami	ments:					

Ethylene dichloride is used in the lithographic Plate manufacturing building C-60. EDC is Either pump through over head piping to an 8,000 gallin storage tank or put into 55-gallon drams which are located in the satellite accumulation area.

GROUNDWATT ROUTE Instruction Jources

Fourter Page

*3. Waste Quantity

Report wastes for units only if containment is other than "VERY GOOD." If containment is "VERY GOOD" for all units, waste quantity equals zero.

If quantity is known, convert data to a common unit; assume 1 ton = 1 cubic yard = 4 drums. For the purpose of converting bulk storage, assume 1 drum = 50 gallons. Enter waste quantity in cubic yards, tons or drums.

If quantity is unknown, estimate waste quantity using the following criteria:

< 10 yd² (or < 40 drums) smail 100 - 1000 yd² (or 400 - 4,000 drums) large > 1000 yd² (or > 4,000 drums) large storage or disposal areas

If the site has multiple SWMUs, combine all waste quantities for SWMUs capable of migrating to groundwater (containment scores less than "VERY GOOD"). Use Worksheer #1 to assist in combining waste quantities.

Sources (circle): Part At Tank Capacities; Permitted Drum Storage Capacity; Inspection Reports: 3007 Response: Annual Reports: Part B.

Comment and other source (date): (ARS 1992

GROUNDWATER ROUTE Data & Comments Fourth Page

Contined of the detail

3. Quantity Known icircle oner?

No:

If Yes, enter actual amount:

cubic yards or tons
3/5 drums

If No. cneck one:

Is amount likely to be small?
Is amount likely to be large?

Are large storage or disposal areas present?

Comments:

Waste at the facility is Stored in 1012 underground tanks or in 55-gallon drums which are located in the satellite accumulation areas or the outside Marshelling area.

Some waste consist of Safety-Kleen tanks which are 30 gallon tanks located in different Building throughout KCD.

GROUNDWATER ROUTE Instructions & Sources Fifth Page

E. Targets

*1. Groundwater Usa

Options are given in order from the most critical (Drinking Water) to the least critical (Not Impacted). Check the most critical groundwater use that occurs. If use is unknown, check Possible Drinking Water, unless specific information refutes this possibility (for example, industrial use or unusable aquifer due to low yield).

if you can verify that none of these uses apply, then check:

Quality Impacted, if there is an observed release. Quality Not Impacted, if there is no observed release.

Source (circle): Monitoring Report.	GIS. Local Water Department.	0
Comment and other source (date):	CDH Division	of water Kesou
	,	19

*2. Distance to Intake

Distance (in miles) to the nearest drinking water well within 3 miles of the facility. If unknown, use distance between hazardous substances and nearest residence where groundwater may be used for drinking water. If the use of the groundwater is unknown ("Possible Drinking Water"), "Quality Impacted," or "Quality Not Impacted," assign "2 to 3 miles" for the distance. If the groundwater flow direction is known, do not consider upgradient wells as receptors.

Source (circle): GIS: USGS Topographic Map or Site Map: Site Visit: Part A: State Atlas.

Comment and other source (date): CDH: Division of Water Resources, 199

GROUNDWATER ROUTE Data & Comments Fifth Page

Ε	Targets	Fifth Page	r m •	t d
	1.	Groundwater Use (check one):	□	瓜
		Drinking Water Possible Drinking Water Agriculture or Industrial		
		Quality Impacted Quality Not Impacted		
	2.	Distance to intake (to the nearest ½ mile):	□	浑
	Comm	ents:		
	T	Le nearest domestic well is located less		
	Tha	n 1/2 mile east of the facility. The		
	N 2.1	1 13 79 Spet in depth.		

AIR ROUTE Instructions & Sources First Page

Observed Release

*1. Is there an observed, unpermitted, ongoing release?

> Yes, if there is a documented, unpermitted, ongoing release to the air route from a SWMU; or No, if there is not a documented release. Documentation may include analytical evidence, a report by a regulatory agency or by a facility employee stating that a release has occurred, or by indirect evidence. Do not score an observed release based on an isolated explosion or fire, but event should be noted in comments.

Sources (circle): Monitoring Reports: Inspection Reports: Site Visit: 3007 Response: TRI: Department of Environmental Protection.

Comment and other source idatel: CDH, Division of Air Pollution Control, 199,

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AIR ROUTE Data & Comments First Page

o son to find many to the desired state of the desi

A. Observed Release

1. Is there an observed, unpermitted, ongoing release? (circle one)

口。这一

Yes



Comments:

None observed or documented.

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AIR ROUTE Second Page

<u>B. _</u>

Likelit	rood of Release		
*1,	Does the facility have an ope	erating air permit?	
	Yes, if the facility has an op	erating permit; or No. if it does not.	
	Sources (circle): EPA; Depa Comment and other source	rement of Environmental Protection. Idatel: CDH, Division of Air Alla Trea	100001,199
•2.	Have there been any permit	violations or odor complaints by residents	?
	Yes, if there have been perm	nit violations or odor complaints; or No, if	there have not.
	Sources (circle): Department Comment and other source	nt of Air Quality Control: EPA.	
3.	Can contaminants migrate ii	nto air?	
	=	on to air is possible; or No, if contaminant seer #4 for determining contaminants of co	
	Sources (circle): EPA; Vers Comment and other source	ar document. Idate): Hazardous Waste	Data base
•4.	Containment (circle one):		
		of the physical barners in place to inhibit Interpret the descriptions in site res wing criteria as guidelines:	
	when scoring the containm Unit scored (include descri	Containment/Migration Potential Inside Building Covered Underground Open Area Inside Building Underground Open Area Open Area Open Consider the entire set of drums in the storal ment. Open and dates in use): use Worksheet #1	
		3007 Response; Inspection Reports.	

	AIR ROUTE Data & Comments Second Page	C o n f i r	E	
<u>8.</u>	Likelihoog of Release	m •	•	
	Does the facility have an operating air permit? (circle one)	ጆ	ū	
	Yes No .			
	Have there been any permit violations or odor complaints by residents? (circle one)	а	×	
	Yes No.			
	3. Can contaminants migrate into air? (circle one)	۵	A	
	Yes No			
	4. Containment (circle one):	₫,	×	
	☐ Very Good 22 Good 5 Fair 6 Poor			

Comments:

Mineral spirits found in the 30 gellon Sufety Kleen

Tanks could potentially affect a worker using

The Tank for prolong periods of Time. All migration

To air should be Kept within the plant building

or volitalize.

AIR ROUTE Instructions & Sources Third Page

C. Waste Characteristics

1. Chemical Name and/or RCA Waste Code Number

Enter the one chemical or waste code of most concern (for the air route) as defined by the chemical with the highest Sax toxicity rating, as found in Appendix A. Use Worksheer #4 to determine toxicity for each chemical of concern for the air route (included in Worksheet #2).

	Data: Permits. For determining most toxic compound: See Appendix A: Comment and other source (date):
2.	Toxicity
	Value for the chemical or waste of concern. Refer to Worksheet #4.
	Sources (circle): See Appendix A.
	Comment and other source (dater:

WORKSHEET #4 Chemical Toxicity Values for Air Route

Identify and list each chemical at the site which has the potential to migrate to the air route. List the RCRA waste code and CAS number, if known. Obtain toxicity values from Appendix A for each chemical. Use the worksheet to select the chemical with the highest toxicity value (0-3) and enter its name and value in the Waste Characteristics section for the air route.

CAS#	Chemical Name and/or Waste Code	toxicity Q-3
107-06.2	ethylene dichloride	2
67-56-1	methanol	2
78-93-3	methal ethal Ketone	2
110-80-5	methal cellosolve	unknown
75-09-2	methylone chloride	2
64475-85.0		3

		AIR ROUTE Data & Comments Third Page	C E c c c c c c c c c c c c c c c c c c	1
<u>c.</u>	Wast	te Characteristics	m t	
	1,	Chemical Name and/or RCRA Waste Code Number) * 0	i
		Minera Spirits	•	
	2.	Toxicity Value (circle one)	a 8	(
		0 1 2 3		
	Com	ments:		
	M	Ineral spirits is used for parts	cleaning.	

7783764

AIR ROUTE Instructions & Sources Fourth Page

*3. Waste Quantity

Report wastes only if Containment is other than "VERY GOOD." If Containment is "VERY GOOD" for all units, waste quantity equals zero.

If quantity is known, convert data to a common unit, assume 1 ton = 1 cubic yard = 4 drums. For the purpose of converting bulk storage, assume 1 drum = 50 gallons. Enter quantity in cubic yards, tons, or drums.

If quantity is unknown, estimate waste quantity using the following criteria:

<10 yd³ (or < 40 drums) smail</p>
100-1000 yo³ (or 400-4,000 drums) large
>1,000 yd³ (or > 4,000 drums) large storage area

If the site has multiple SWMUs, use combined waste quantities. Use the amount of volatiles and particulates with containment values less than "VERY GOOD" to determine waste quantity for the air route. If facility discharges to air, include the amount of waste released in determining waste quantity.

Sources (circle):	Part A; Inspection	Reports: 3007	Respons	58.	
Comment and ot	her source (date): _	<u>u</u>	<u>25</u>	1992	

AIR ROUTE Data & Comments Fourth Page

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d	4
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3. Waste Quantity Known? (circle one)

	es	
15	YES.	

No

If YES, enter actual amount:

	cubic yards	٥r	tons
3/5	drums		

If No, check one:

- Is amount likely to be small?
 Is amount likely to be large?
- Are large storage or disposal areas present?

Comments:

See comments page 11.

AIR ROUTE Instructions & Sources Fifth Page

_	7
D.	T ATMETS

*1.	Population
, ,	, commence

Determine if residences, industries, and agriculture are located within 4 miles of the site. Residence indicates a single person or more. Check most critical item which applies.

Sources (circle):	GIS(Site Visit:	Local Planning	Department.	
Comment and oth	ner source (date	u:	<u> </u>	

*2. Distance to Sensitive Environments?

Enter the nearest distance from the site to a sensitive environment in miles. Sensitive environment includes freshwater wetlands (greater than 2 acres), marshes, swamps, parks (national or state), and critical habitats of state and federal proposed and listed endangered species.

Sources (circle):	GIS: State Depart	ment of Fishenes	& Wildlife; USGS.	
Comment and oti	her source (date):		· · · · · · · · · · · · · · · · · · ·	

AIR ROUTE Data & Comments Fifth Page

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D. Targets

×	Are residences located within 4 miles (most critical)?	
ā	Are other industries located within 4 miles?	
•	Are agricultural lands located within 4 miles (least critical)?	
	Any other situation? Please comment:	
		•

2. Distance to Sensitive Environments (miles) ____ /2_ mile__

Comments:

The Town of Windsor and several

raral residence live within four niles

of the site Several deciduous wetlands

are located along the Cache la Pondre

river and the Federally Endangered

Bald Englic as known to inhabit

The area around KCD.

SURFACE WATER ROUTE Instructions & Sources First Page

<u> </u>	Obser	ved Release
	*1.	Yes, if there is evidence of a direct discharge of contaminants to surface water: No, otherwise. A direct discharge can include such events as spills, runoff from contaminated soils, or discharge of contaminated groundwater. Occumentation may include analytical evidence, a report by a regulatory agency or by a facility employee stating that a release has occurred.
		Sources (circle): Site Visit: Monitoring Reports: 3007 Response. Comment and other source (date):
<u>8</u> _	Likelit	noog of Release
	1a.	Permitted Outfall
		Yes, if there is a permitted outfall: No, if there is not.
		Sources (circle): Department of Environmental Protection: EPA Files Comment and other source (date):
	16.	Violations
		Yes, if there have been permit violations; No, if there have not.
		Sources (circle): Department of Environmental Protection: EPA Files Comment and other source (date):
	•2.	Facility Location
		Select flood prone area, 100-year floodolain, or other. If floodolain information is unavailable, check "Other."
		Source (circle): Flood Insurance Study Maps. Comment and other source (date): CDH, Division of Hazardous Wester, 199

SURFACE WATER ROUTE Data & Comments First Page

A. <u>Is there an observed release?</u> (circle one)

Yes

No

Comments:

None observed or reparted

3. <u>Likelihood of Release</u>

۱a.	Is there a permitted outfail
	(circle one)

図 口

Yes

No

1b. If so, have there been permit violations? (circle one)

Yes

No

Facility Location (check one):

太 [

Flood prone area
100-year flood plain

Other

Comments:

The 100-year flood plain covers the southern permeter of the facility along the Cache la Pondre River. No The Cache la Pondre River. No buildings or structures are located on the 100-year flood plain.

SURFACE WATER ROUTE Instructions & Sources Second Page

<u>c. </u>	Route	- Characteristics
	1.	24-hour Rainfall
		Enter the 1-year, 24-hour rainfall. Refer to contour map in Appendix 8.
		Sources (circlete See Appendix 8. Comment and other source (date):
	•2.	Distance to Surface Water
		Enter distance in miles. If surface water is discharged to a stream or niver through a ditch, use the distance to the stream or niver.
		Sources (circle): USGS: Site Visit: GIS.— Comment and other source (date): 1,25,1992
	3.	Physical State
		Evaluate the privaical state of the waste most likely to impact surface water in the event of a release. If there are multiple SWMUs, select the least stable physical state of the wastes on site:
		stable soud
		unstable solid powder ash
		liquiq. gas. sluage
		Sources (circie): 3007 Response: Site Visit.
		Comment and other source (date):

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	CHDEACE WATER POLITE	•	•
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	Data & Comments	f	i
	Second Page	i	m
		ı	
		m;	t
D		•	•
- 701	E Characteristics	d	đ
١.	24-hour Rainfall (inches): 1.5		E
2.	Distance to Surface Water (miles): 4	∕≅	а
3.	Physical State (check one):	a	
	Stable Solid (most stable) Unstable Solid Powder, Ash		
	1.	24-hour Rainfall (inches):	SURFACE WATER ROUTE Data & Comments Second Page 1. 24-hour Rainfall (inches): 1.5 2. Oistance to Surface Water (miles): 4 3. Physical State (check one): Stable Solid (most stable) Unstable Solid Powder, Ash

Comments:

Any spills or leaks from a containment area could potentially run off into the 5 torm sewers which lead to the waste water treatment plant or the John Law ditch which flows into the Cache la Pondre River.

SURFACE WATER ROUTE Instructions & Sources Third Page

*4. Containment

Containment is a measure of the physical barriers in place to inhibit a waste from entering the surface water pathway. If there are multiple SWMUs, select the SWMU with the worst containment level.

Use the following criteria as guidelines (e.g., consider a lined lagoon with unbreached berms as a "sealed container"):

Unit	Containment/Migration Potential	Score
Sealed Container/Tank	Sound Secondary Containment	Very Good
Sealed Container/Tank	Unsound Secondary Containment	Goog
Leaky Container/Tank	Sound-Secondary Containment	Good
Underground Storage Tank	Tank Integrity Unknown	Good
Sealed Container/Tank	No Secondary Containment	Fair
Leaky Container/Tank	Unsound Secondary Containment	Fair
Leaky Container/Tank	No Secondary Containment	Poor
Lang-baseg Unit		Poor
Contaminated Groundwater	Discharge to Surface Water	Poor
Contaminated Surface Soil	Runoff to Surface Water Likely	Poor

Unit scored (include description and dates in use): use Worksneet #1:

SURFACE WATER ROUTE Data & Comments Third Page

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n	t
f	i
i	m
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n	t
•	•
4	d
-	X

4. Containment (check one):

- ☐ Verv Good
- E Good
- ☐ Fair ☐ Poor

Comments:

See comments Page 7.

725220-6

SURFACE WATER ROUTE Instructions & Sources Fourth Page

D. Waste Characteristics

2.

1. Chemical Name and/or RCRA Waste Code Number

Enter the one chemical or waste code of most concern (for the surface water route) as defined by the chemical with the highest Sax toxicity rating, as found in Appendix A. Use Worksheer #3 to determine toxicity/persistence for each chemical of concern for the surface water route (included in Worksheer #2).

Water/Sediment Analytical Data. For determining most toxic compound: See Appendix A.
Comment and other source (date): (3.25, 1992
Toxicity/Persistence
Value for the chemical or waste of concern. Refer to Worksneet #3.
Sources (circle): See Appendix A. Comment and other source (date):

						ACE WAT ata & Con Fourth P	nments	UTE	G n t i	E
٥.	Wast	a Chara	oteristic	:5			-		m • d	t d
	1.					A Waste		lumbér:	路	۵
	2.	Toxi				(circle one			逐	◻
	Com	0 ments:	3 -	6	9	(12)	15	18		

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SURFACE WATER ROUTE Instructions & Sources Fifth Page

*3. Waste Quantity

Report units only if containment is other than "VERY GOOD." If Containment is "VERY GOOD" for all units, waste quantity equals zero.

If quantity is known, convert data to a common unit, assume 1 ton = 1 cubic yard = 4 drums. For the purpose of converting bulk storage, assume 1 drum = 50 gallons. Enter waste quantity in cubic yards, tons of drums.

If quantity is unknown, estimate waste quantity using the following criteria:

< 10 yd² (or < 40 drums) smail</p>
100 - 1,000 yd² (or 400-4,000 drums) large
100 - 1,000 yd² (or > 4,000-drums) large storage or disposal areas

If the site has multiple SWMUs, use combined waste quantities. Use Worksheet #1 to assist in combining waste quantities.

Sources (circle): Part A: Inspection Reports: 3007 Response: Annual Reports: Part 8.

Comment and other source (date): CDH, Division of Hazardovs busic, 1992

SURFACE WATER ROUTE Data & Comments Fifth Page

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3.

j.	44921	e Chautita kuomus scitcie dusi
<	Y 83) No
	If Ye	s. enter amount:
	_3	cubic varos or tons
	lf No	, check one:
	٥٥۵	Is amount likely to be small? Is amount likely to be large? Are large storage or disposal areas present?
Com	ments:	,

See COMMENTS Page 11.

SURFACE WATER ROUTE Instructions & Sources Sixth Page

_	-
_	770414
- .	<u> argers</u>

*1. Type of Surface Water Use

Options are given in order from most critical (Drinking Water) to least critical. Check the most critical that applies. If there is no information, assume recreational use. If you can verify that none of the uses apply, then check:

Quality impacted, if there is an observed release.

Quality Not impacted, if there is no observed release.

Further distinguish depending on whether the distance to surface water is < 3 miles.

*2. Distance to Intake or Contact Point

Distance from site to the point of surface water use (drinking water intake, recreation area, etc.). If there is no information on the use of a surface water body receiving a discharge from the facility, the distance to the contact point should be the distance from the facility to the nearest point of the surface water body.

Sources (circle): Hydrographic Atlas: GIS: Site Visit: Town Records.

Comment and other source (date):

*3. Distance to Sensitive Environment

Enter the distance from the site to a sensitive environment along the surface water route. Sensitive environments include freshwater wetlands (greater than 2 acres), marsnes, swamps, parks (national or state), and critical habitats of state and federal proposed and listed endangered species.

Sources (circle): GIS: State Department of Fisheries & Wildlife:)USGS.

Comment and other source (date):

-34-

=		SURFACE WATER ROUTE Data & Comments Sixth Page	6 o c t i r m	E
	arge		d	ď
	1.	Type of Surface Water Use (check one):	П	玆
		Orinking water Possible drinking water Recreation Agricultural or industrial Quality impacted but within 3 miles No surface water bodies within 3 miles	-	
	2.	Distance to the Intake or Contact Point (miles):		5 1.
	3.	Distance to Sensitive Environment (miles):		
	Comm		图、	u
	con Rive	rface water within a four mile radius s. 57 of the Cache la Pondre r and several irrigation ditches s. for water		

725226-6

ON-SITE ROUTE Instructions & Sources First Page

Α	Access	to Site	
	1.	Is the site accessible to nearby residents?	
		Rate the accessibility as follows:	
		•	<u>Score</u>
		A 24-hour surveillance system or a barrier (fence.	
		etc.) is in place with a means to control entry:	inaccessible
		A less than 24-hour security guard and no barrier: OR	
		a barner but no separate means to control entry: OR	
		a fence that is partially open:	Limited Access
		No barner and no security guard:	Unlimited Access
		Sources (circle) Site Visit, Facility Inquiry.	- 0
		Comment and other source (date):	1992

B. Observed Soil Contamination

*1. Is there observed soil contamination?

Yes, if there is sampling information showing concentrations of contaminants greater than background; or No, if there is not a documented release to soil. If indirect evidence such as stressed vegetation, indicates a release, estimate Yes and comment. Do not score an observed release if contaminated soil is covered by 2 feet or more of clean soil or is covered by concrete or asphalt.

Sources (circle): Monitoring Report:	s: Site Visit: 3007 Response.
Comment and other source (date):	

ON-SITÉ ROUTE Data & Comments First Page	GE 9 8 10 t 1 m 1 m 1 a met	
A. Access to site	* • d d	
1. Rate the accessibility of the site (check one):	X C	
☐ Inaccessible ☐ Limited access ☐ Unlimited access		
Comments:		
A 24 hour Security and Surveillan	ice system	
15 in place but no fence surroun	d the	
perimeter of the facility.		
B. Observed Soil Contamination		
Is there observed soil contamination? (circle one): Yes No.	×	3
Comments:		
None observed or reported		

ON-SITE ROUTE Instructions & Sources Second Page

C. Containment

Containment is a measure of the physical barriers in place to innibit a waste from entering the on-site pathway either now or in the past. Use the same containment factor selected in the Groundwater Route section:

<u>Unit</u>	Containment/Migration Potential	Score
Sealed Container/Tank	Sound Secondary Containment	Very Good
Sealed Container/Tank	Unsound Secondary Containment	Good
Leaky Container/Tank	Sound Secondary Containment	Good
Underground Storage Tank	Tank integrity Unknown	Good
Sealed Container/Tank	No Secondary Containment	Fair
Leaky Container/Tank	Unsound Secondary Containment	Fair
Leaky Container/Tank	No Secondary Containment	Poor
Lang-based Unit	~	Poor

Unit scored linclude description and dates in usel: use Worksheet #1:

Sources (circle): Inspection Reports: Site Visit: 3007 Response.

Comment and other source (date): URS, 1952

ON-SITE ROUTE Data & Comments Second Page

C. Containment:

Containment score (check one):

☐ Very Good ☐ Good

Fair Poor

Comments:

Safet-Kleen Tunks are located in open and easily accessible areas within the plant buildings. Drains leading to the waste water treatment plant are located near the safety-Kleen Tanks.

Waste Could potentially slep out during use or a tank could accidently be Klocked over by forklifts that are located in some plant areas.

725226-6

ON-SITE ROUTE Instructions & Sources Third Page

D. Waste Characteristics

1. Chemical Name and/or Waste Code Number

Enter the one chemical or waste code of most concern (for the on-site route) as defined by the chemical with the highest Sax toxicity rating, as found in Appendix A. Use Warksheer #5 to determine toxicity for each chemical for the on-site route (included in Worksheer #2).

Sources (circle): For determining contaminants of concern: Part A: Site Visit: Soil Analytical Data. For determining most toxic compound: See Appendix A:

Comment and other source (date):

2. Toxicity

Value for the chemical or waste of concern. Refer to Worksheer #5.

Sources (circle): See Appendix A.
Comment and other source (date):

WORKSHEET #5 Chemical Toxicity Value for On-Site Route

Identify and list each chemical at the site which has the potential to migrate to the on-site route. List the RCRA waste code and CAS number, if known. Obtain toxicity values from Appendix A for each chemical. Use the worksheet to select the chemical with the highest toxicity value (0-3) and enter its name and value in the Waste Characteristics section for the on-site route.

CAS#	Chemical Name and/or Waste Code	toxicity 0-3
107-06.2	ethylere dichloride	2
67-56-1	me + hana	2
78-93-3	Methylethyl Ketone	7
110-80.5	Methyl Cellosolve	unkrown
75-09-2	meth-lene chloride	2
64475.85-0	mineral Spirits	3

		ON-SITE ROUTE Date & Comments Third Page	G • n	E e t
<u>o.</u>	Wast	2 Toxicity	, ,	t
	1.	Chemical Name and/or RCRA Waste Code Number: Minoral Spirits	. ≅	□
	2.	Toxicity Value (circle one):	ø	□
	Comn	nents; '		
	N	lineral spirits is a set for parts o	elcanin	٠5٠

720220-0

ON-SITE ROUTE Instructions & Sources Fourth Page

<u> </u>	Targets	•
	•1.	Distance to Residential Areas
		Determine this distance to the nearest residence (in miles).
		Sources (circle): GIS: USGS: GEMS: Local Planning Department: Area Maps. Comment and other source (date):
	•2.	On-Site Sensitive Environments
		Yes, if there is a sensitive environment within facility boundaries or in areas with solicontamination due to facility operations; or No, if there is not a sensitive environment on-site. Sensitive invironments include Treshwater wetlands (greater than 2 acres) markers, swamps, parks (national or state), and critical habitats of state and federal proposed and listed endangered species.
		Sources (circle): GIS: State Department of Fisheries & Wildlife: USGS. Comment and other source (date):

ON-SITE ROUTE Data & Comments Fourth Page

E. <u>Targets</u>

1. Distance to nearest residential area (miles): 4/2

2. Is there an on-site sensitive environment (circle one)?

Yes

No

Comments:

See comments page 23.

APPENDIX D Photolog

Color Photo(s)

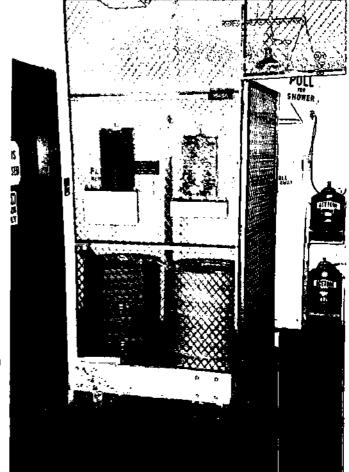
The following pages contain color that does not appear in the scanned images.

To view the actual images, please contact the Superfund Records Center at (303) 312-6473.

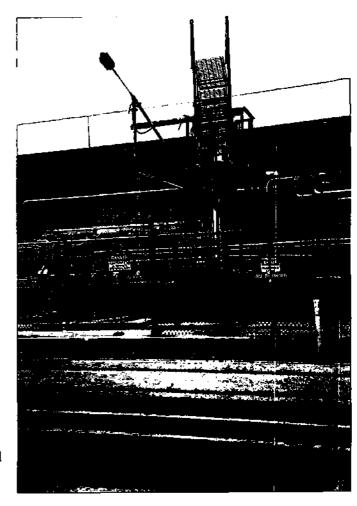


Photograph taken to the west of Satellite Accumulation Area.

PHOTO 2



Photograph taken to the west of oil drum with contaminated solvents.



Photograph taken to north of loading and unloading of hazardous materials area.

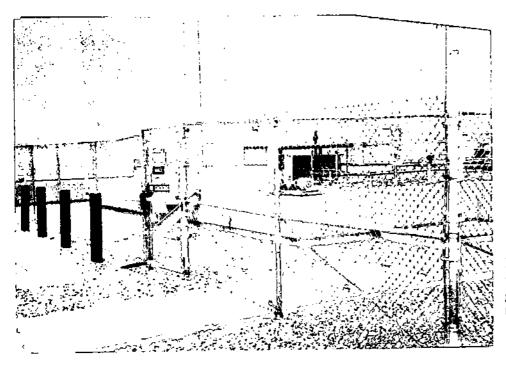
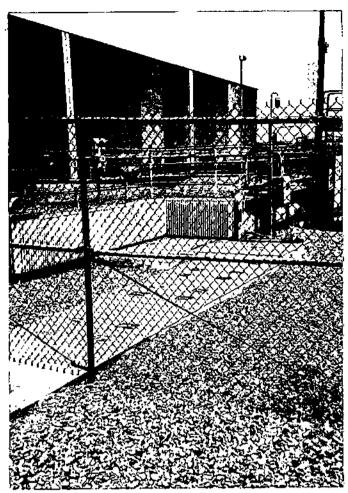


PHOTO 4

Photograph taken to the northeast of 1,000gallon buried methanol tank.



Photograph taken to northeast of concreteenclosed waste pipe leading from building C-43 into the 1,000-gallon tank.

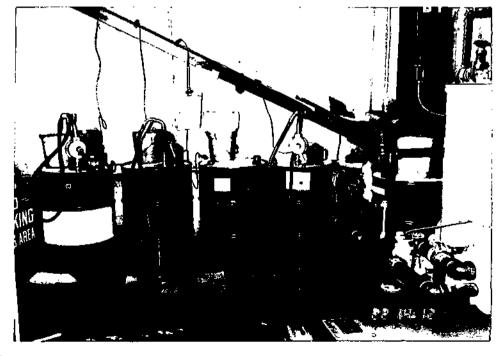
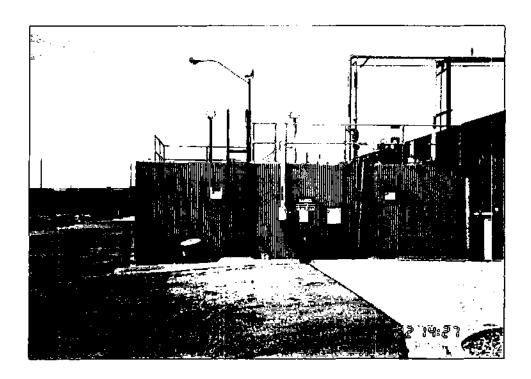


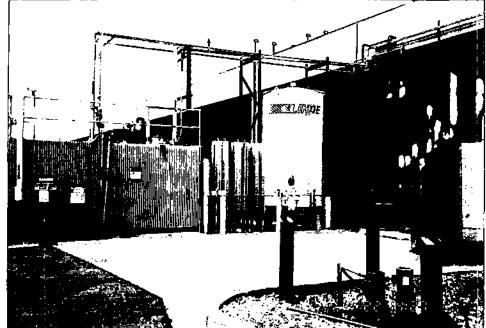
PHOTO 6

Photograph taken to the west of oil drum with freon mixture in Building C-48.



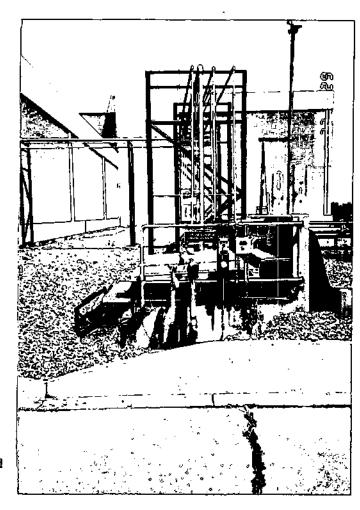
Photograph taken to the north of the 8,000-gallon EDC tank and containment.





РНОТО 8

Photograph taken to the northeast of a liquid nitrogen tank located next to the 8,000-gallon EDC tank and showing the sump in the foreground.



Photograph taken to the east of the loading and unloading area for the EDC tanks.



PHOTO 10

Photograph taken to the west of the product solvent EDC buried tanks.



Photograph taken to the east of groundwater monitoring well located next to Building C-60.

PHOTO 12



Photograph taken to the east of a Satellite Accumulation Area.

41851.37-Den Appendix.D:bp



Photograph taken to the east of the sump drain and 55-gallon drums in the Outside Marshalling Area (OMA).

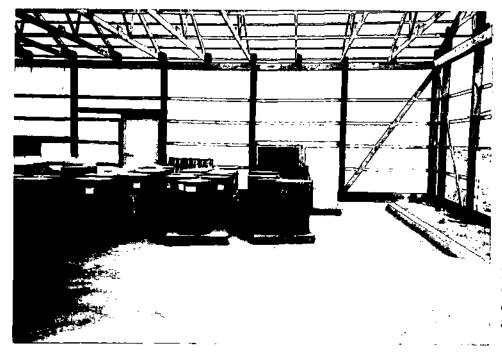
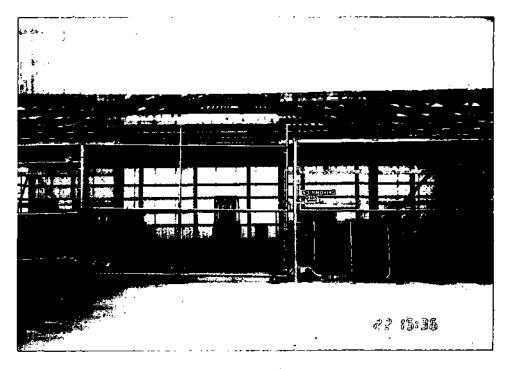


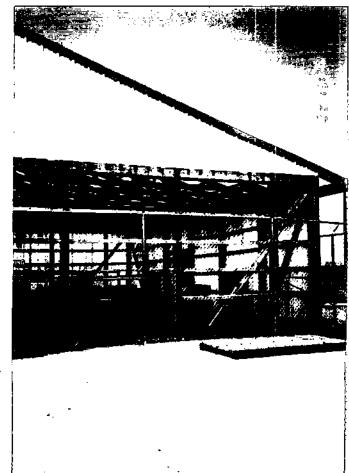
PHOTO 14

Photograph taken to the east of the containment berm around the OMA pad.



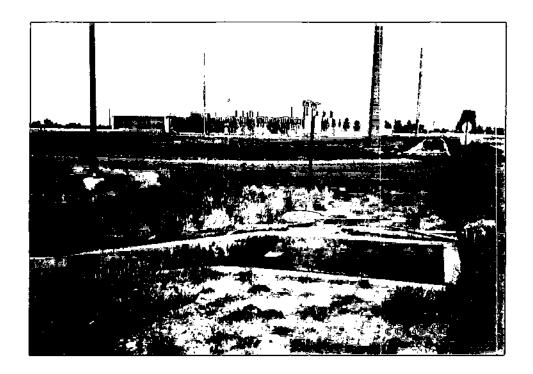
Photograph taken to the north of the locked gate and fencing around the OMA.

PHOTO 16



Photograph taken to the northeast of OMA structure.

41851.37-Den Appendix.D:bp



Photograph taken to the east at the intersection of the Whitney Ditch and John Law Ditch.

APPENDIX E PA+ Site Inspection Report

PA+ FACILITY RECONNAISSANCE REPORT

Performed by URS Consultants, Inc.

FACILITY: Kodak Colorado Division

ADDRESS: 9952 Eastman Park Drive

Windsor, Colorado 80551

DATE: June 22, 1992

INVESTIGATORS: Mike Eastep (URS) and Larry Brook (URS)

FACILITY CONTACT: Jim Chudd (Kodak)

WEATHER: Clear, warm

STATE AND OTHER AGENCY PERSONNEL PRESENT AT INSPECTION:

James Hindman, Colorado Department of Health

GENERAL SITE CONDITIONS:

A large facility with numerous manufacturing buildings and paved roadways. Facility is well maintained and security is high in each building.

SWMU OBSERVED:

- 1. C-60 Storage Tank (8,000-gallon ethylene dichloride tank)
- 2. C-43 Storage Tank (1,000-gallon methanol tank)
- 3. 5 Satellite Accumulation Areas
- 4. Outside Marshalling Area
- 5. Safety-Kleen Tanks

DO ANY FACILITY CONDITIONS POSE A THREAT TO THE ENVIRONMENT OR NEARBY POPULATION REQUIRING THAT THE FACILITY SAM BE NOTIFIED IMMEDIATELY AND THAT AN IMMEDIATE POTENTIAL THREAT MEMORANDUM BE SENT TO THE EPA?

NO ■ YES □ (if yes, when was memo sept?)

SIGNATURE OF INSPECTOR:

DATE: